The American Artisan
And Hardware Record

Vol. 57. No. 2. CHICAGO, JANUARY 9, 1909. $2.00 Per Year.

All Kinds of
BOLTS, RIVETS, NUTS, WASHERS, CARRIAGE FORGINGS, ETC.
Send for 1908 Catalog "R." Prices on Application
COLUMBUS BOLT WORKS, Columbus, O.

GET THE LIVE LINE
"AMERICAN SEAL"
Elastic Oil Roofing Cement, Stove Putty and Asbestos Furnace Cement
For Furnaces, Stoves, Ranges and Roofs.
Jobbers write to-day for prices
THE
Wm. Connors Paint Mfg. Co.
Makers. TROY, N. Y.
Western Agents: Friedley-Voshardt Co., 194 Mather St., Chicago, Ill.
Southwestern Agents: Stockhoff Supply Co., 107 N. Main St., St. Louis, Mo.

The LARGEST Exclusive WHOLESALE Net Price Catalogue House in the World of
Cutlery, Hardware and House Furnishing Goods
Large Catalogue Will Be Sent on Request to Merchants Only.
CHAS. WEILAND
147-149 Chambers Street, 129-131 Reade Street, New York City
Cutlery and Mechanics' Tools my Specialty.

MATCHLESS
Spring and Pivot Hinges
Floor Hinges, Jamb Hinges and Hardware Specialties.
The fact that Matchless Spring Hinges have been on the market since 1895 and that in that time not one set has required repairs from fault of hinge speaks very well for their serviceability and wearing qualities.
If your Jobber cannot furnish them write us.
LAWSON MFG. CO.
40 Dearborn St., Chicago, Ill.

WORLD'S BEST
TUBULAR TRACK
DOOR HANGER
Our Track has the SLIDABLE Bracket, the feature that has made World's Best Hangers so popular with the Building Trade.
Write for Catalog and Prices
SAFETY DOOR HANGER CO.
Ashland, Ohio, U. S. A.

"NEVER-BREAK"
TRADE MARK

Catalog Free
"NEVER-BREAK"
STEEL SPIDERS, GRIDDLES AND KETTLES
WILL NOT Scale Off like cheap enamel.
WILL NOT Scorch or Burn like light fry pans and skillets.
WILL NOT Absorb Grease or Flavors like cast Iron.
THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods.

The Highest Grade File Made.
DELTA
TRADE MARK
DELTA
DELTA FILE WORKS
CARVER FILE CO.
PHILADELPHIA, PA.
An independent organization not connected with the trust in any form, shape or manner.
FILES OF QUALITY
FILES
The File You Will Eventually Use.

PULLMAN
SASH BALANCES

Are you selling them?
IN USE EVERYWHERE
Send us your orders
PULLMAN MFG. COMPANY
SOPHIA STREET
ROCHESTER, N. Y., U. S. A

100
Tinners' Patterns
Complete for
$1.00
Sent Postpaid on Receipt of Price
Daniel Stern
355 Dearborn Street - Chicago

GARNET CINDERELLA

Large Flues Heavy Castings Well Made
Up-to-date Design

Also made as TRUE TREMONT and MILDRED
GOOD LUCK under distinct designs

A BUSINESS OPPORTUNITY
IS KNOCKING
AT YOUR DOOR

When you are offered
THESE HIGH GRADE STOVES
At Their Present Prices

These Stoves are less than a year old, but we believe them to be the largest sellers in the Cook Stove Business.

STOVE & RANGE CO. OF PGH.
GOOD VALUES IN STOVES
PITTSBURGH - PENNSYLVANIA

The 11th in a Series of Reasons Why the KELSEY is the Best Warm Air System

There's a PROFIT in it for YOU!

You know the trouble you've had in the past to land heating jobs—with an ordinary furnace! It's been a question of **price.** Because you had nothing else on which to base your reason why you ought to have the job.

We've always said that the Dealer who has the exclusive agency for the KELSEY Warm Air Generator can easily have the cream of the heating business in his locality.

And that is true, — not merely in two or three cases, — but in nearly every one of the 800 KELSEY Agencies.

The KELSEY Dealer does **not** talk price,—he tells about the immense heating capacity of the KELSEY,—**more than double** that of the ordinary furnace of equal size; he talks about the even distribution of warm air,—to every part of the building,—something impossible with the ordinary hot air furnace; he explains **with facts and figures,** how the **KELSEY actually burns less fuel** for the volume of warm air produced; he points to over 34,000 KELSEY Generators in successful operation today,—in small cottages, in city homes, in magnificent country estates, in schools and churches of all sizes.

And with live, interesting facts to present,—that swing the prospect around to your way of thinking,—the question of price dwindles away. Not in theory,—but in actual, every day work!

And before you know it,—you have the job,—at your own figure,—**with a profit in it for you!**

If you want a live proposition, that gives a living profit,—better ask for the KELSEY Exclusive Agency in your town,—before somebody else gets it

There's Money In It For You!

KELSEY HEATING COMPANY, Syracuse, N. Y.

NEW YORK, 156 Fifth Avenue
CHICAGO: Van Evera & Lewis Mfg. Co., 104-106 W. Lake Street
James Smart Mfg. Co., BROCKVILLE, ONT., Sole Makers for Canada

The RELIABLE GASOLINE STOVE

IS THE QUICKEST SELLING SUMMER STOVE THAT THE MARKET AFFORDS

BECAUSE

Its handsome appearance immediately attracts the attention of the prospective buyer and arouses his interest.

The many meritorious features embodied in its construction and its simplicity of operation (most quickly and easily demonstrated by the dealer) never fail to create the desire to possess, and finally, knowledge as to reasonableness of the price asked for it, speedily effects the sale.

THERE ARE JUST FIFTY SIZES AND STYLES OF RELIABLE VAPOR STOVES AND RANGES MADE, EACH AND EVERY ONE FULLY GUARANTEED BY

Schneider & Trenkamp Company

Division of American Stove Company

CLEVELAND

BRANCHES AT New York, Chicago, San Francisco

ASK FOR CATALOG No. 36A

1894 "Quick Meal" Gasoline Range.

"Quick Meal" Coal Ranges

Have been sold and advertised extensively.

SAVE MONEY

by selling "QUICK MEAL" GASOLINE STOVES.

By handling the two seasonable lines under one name, one advertisement helps both, one sale recommends the other.

"Quick Meal" Gasoline Stoves will help you build up your trade as their standard of high quality is unquestioned, their styles the latest, their operation the best.

RINGEN STOVE CO.

DIVISION OF AMERICAN STOVE CO.

ST. LOUIS, MO.

SAN FRANCISCO, CAL. **Indiana St., Between 20th and 21st**

CATALOGUE NOW READY

A GOOD THING for the RIGHT DEALER

Better Than Most

As Good as the Best

FOSTER'S OPAL

Made in Nos. 8-16, 8-18, 8 and 9-20. All sizes have Duplex Grate.

If desired all sizes can be furnished with STEEL HIGH CLOSET, RESERVOIR, WATER FRONT, OVEN THERMOMETER AND TOWEL ROD.

One good, energetic dealer is desired in every town to handle this range. Inquiries are earnestly solicited from all such. Write to-day.

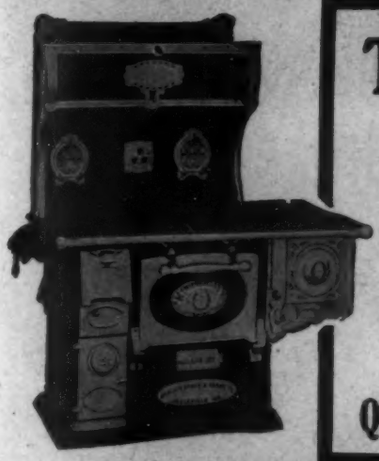
THE FOSTER STOVE COMPANY, IRONTON, OHIO

Western Branch, 1306 W. 8th St., Kansas City, Mo. F. C. TUTTLE, Manager

Munsell's Mica

EUGENE MUNSELL & CO.
NEW YORK AND CHICAGO

THE STANDARD FOR HIGH GRADE STOVES



THE KING QUALITY

IN ENTIRELY NEW DRESS

Here is a range that calls forth the enthusiasm of every dealer who sees it. It is also proving a happy proposition for every dealer who is handling it. AND NO WONDER. Its construction is ideal. Its working qualities are perfect. Every known feature of convenience as well as some that are **distinctly its own** are embodied in its make-up. Only the very best of materials are used and our workmen are everyone experts. Taken all in all **The King Quality** looms up as the best range now on the market.

Made with either Cabinet or Cast Leg Base.

Our Catalog will convince you that here is a range which you can depend upon and which it would be to your best interests to handle. Write for it.

QUALITY STOVE AND RANGE CO., Belleville, Ill.

CELLULAR OVERDRAFT FIREPOT

Found Only in Our Furnaces

THE BONNOT COMPANY ∴ **CANTON, OHIO**

The MICHIGAN SAFETY FURNACE PIPE COMPANY

Corner Brooklyn and Abbott Streets,
DETROIT, MICHIGAN.

Manufacturers of A PERFECT HOT AIR FURNACE PIPE, SAFETY WALL PIPE, SINGLE PIPE and FITTINGS in both Tin and Galvanized Iron.

WRITE FOR OUR LATEST CATALOG.

We Make the Only Sectional Furnace Pipe in which the Inner Walls Form the Cross Walls.

No Wings to Pull Out. No Cleats to Bend.

BOYNTON'S

Square Pot Steel Dome Furnace

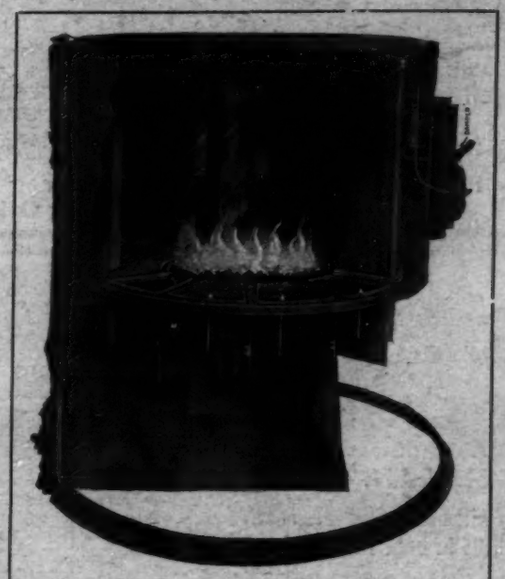
Another of the many different styles of Square Pot Furnaces with genuine talking and selling points now being manufactured and sold to the trade.

SEND FOR OUR COMPLETE CATALOGUE.

THE BOYNTON FURNACE CO.

147-149 Lake St., CHICAGO 207-209 Water St., NEW YORK

FAULTLESS SCIENTIFIC HEATER



Showing Flue Construction, Fire Pot and Extension Flue Partitions.

The Highest Type of Furnace Perfect in Every Detail

The most severe tests for two years prove IT TO BE AN UNQUALIFIED SUCCESS

The air is heated in separate currents and can be carried long distances and to any desired part of the house. No overheated air is possible with this heater.

The number of square feet of radiating surface, compared with the grate surface, is **much greater** than in any ordinary furnace.

No other Heater of this class can be so easily mounted.

An examination will convince **you** and you can as readily convince your best class of customers.

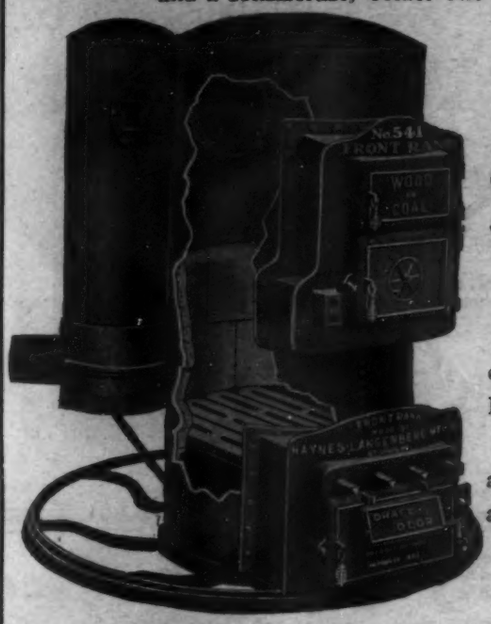
The **exclusive agency** for this **Incomparable Heater** will be a valuable asset to any good furnace dealer.

THE GRAFF FURNACE COMPANY

208 WATER STREET, NEW YORK.

It Will Be a Cold Day

and a considerably colder one than any of us have ever seen, at that, when



FRONT RANK STEEL FURNACES

will be unable to keep every room in the houses in which they are installed comfortably supplied with pure warm air.

Of course this wouldn't be possible if they weren't correctly constructed, but their ABSOLUTELY CORRECT CONSTRUCTION is their forte.

Here is a furnace that will build up a reputation for any dealer, a good, substantial furnace, a great fuel saver, absolutely gas-tight—a guaranteed satisfaction giver.

Catalog and terms will be sent upon request.

HAYNES-LANGENBERG MFG. COMPANY

4045-4057 Forest Park Blvd.
ST. LOUIS, MO.

211-213 Lake Street
CHICAGO, ILL.

NIAGARA Furnace

MADE ENTIRELY OF CAST IRON

Strictly modern and up-to-date. Deep and roomy ASH PIT. THE GRATE is of the triangular bar dumping type. Two-piece FIRE POT, corrugated with deep cup joints. Cast iron RADIATOR. Equipped with DUST FLUE, has LARGE, WELL FITTING DOORS and ornamental SHIELD FRONT. **They can't be made better.**

WRITE FOR CATALOG.

FOREST CITY FOUNDRY & MANUFACTURING CO.

Cleveland, Ohio

Manufacturers of the Monarch, Imperial and Combination Furnaces, Registers, Mail Boxes, etc., etc.

Sell The GILT EDGE Line
For 1909

SCHWAB SIDEWALL REGISTERS.
TIN and GALV. IRON FITTINGS, Etc., Etc.

Build a good reputation on a furnace that you can rely on. One that will stand up under all conditions of use. There is one such; it is the **GILT EDGE LINE.** Catalogs now for 1909 agency.

R. J. SCHWAB & SONS CO.
MILWAUKEE, WIS.

Floral City Capitol Furnace

Like all Floral City Furnaces, the CAPITOL has embodied in its construction all the best features of the up-to-date furnace. The result is a durable, powerful and economical heater. It's most important feature is the Dome or Body with the outer return flue, or

HORSE-SHOE RADIATOR

The Dome is high enough to give an extra large combustion chamber but the furnace is low enough to fit in shallow basements.

This furnace is heavily constructed and will give the most satisfactory service.

WRITE FOR CATALOG OF OUR ENTIRE LINE.

MONROE FOUNDRY & FURNACE CO., Monroe, Michigan

The CHAMPION
Hot Water Combination Boilers

THEY FIT ANY FURNACE

One or more sections can be used together according to the amount of radiation to be used. The fire passing through spaces between rings in each section and over their large surfaces permits the direct action of the fire to come in contact with each section, making a powerful and effective heater. **Champion Boilers** are tested to 100 pounds hydraulic pressure before leaving the factory and are guaranteed not to leak. Will increase every dealer's business who handles them. Prices, measurements, etc. upon application to

FRANK D. STOLZ
Manufacturer
156 Webster Ave., Chicago, Ill.

Simplicity, Durability, Economy and Capacity

All of which are essentials of the really Good Furnace, are featured in the

MONCRIEF FURNACE
TOP RETURN FLUE WARM AIR

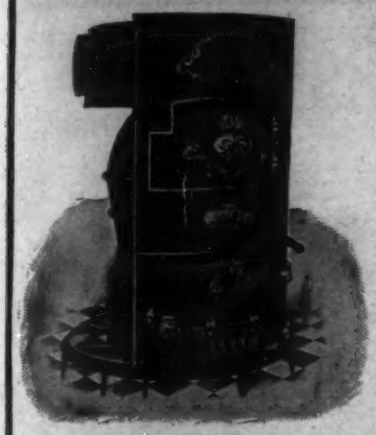
This is a furnace which is unsurpassed for operation and durability.

FEATURES: Burns all grades of hard and soft coal; all cast iron; Moncrief Duplex Grate; large radiating surface; double fire-pot; large grate surface and cleanliness in use. Write for catalogue.

Henry & Scheible Co., 825-29 Long Ave., N. W. CLEVELAND, OHIO
J. C. KIMMEL, 2314 E. 25th St., Kansas City, Mo., Western Sales Agent

W. F. GUENTHER & SONS, Owensboro, Ky., write:

"We feel that we cannot get along without THE AMERICAN ARTISAN and HARDWARE RECORD."



OUR NEW DE HAVEN ALL CAST FURNACE

Strictly Modern and Up-to-Date in Every Respect

All the latest features in modern furnace construction are embodied in the make-up of this furnace.

FEATURES: Extra Heavy; Gas Tight; Burns all grades of Hard Coal, Soft Coal and Wood; Simple and Economical to Operate; Top Return Flue Radiator; Large Radiating Surface; Roller Bar Grate.

Write to-day for Catalog and Prices.

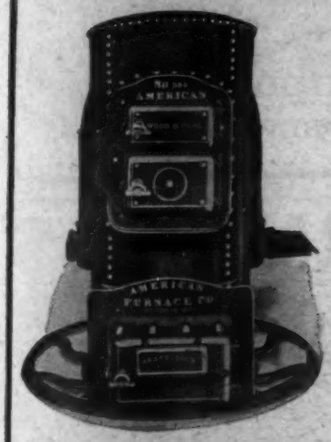
Youngstown Furnace & Supply Company

NILES, OHIO

Manufacturers of the Celebrated LION-APEX and BESSEMER Series of Furnaces.

Chicago Branch
218 East Lake Street

ROOD & McINTYRE
Kansas City, Mo., Southwestern Distributers



Both the Dealer's and the User's Interests

Have been considered in the construction of

American Furnaces

We have made a furnace that every dealer in every community can sell and guarantee. A furnace that is built upon Hygienic and Modern Principles and bound to satisfy the user in every particular.

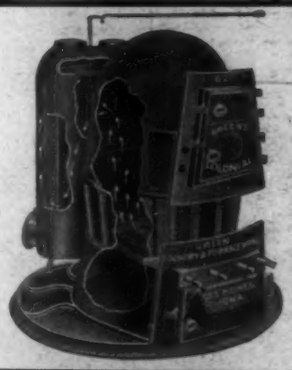
Clean and Tight Like a Boiler

—our new method of riveting makes it so.

DEALERS: A Sample Furnace will be shipped to any responsible dealer in the United States and if after careful examination (we allow you 30 days) it does not prove entirely satisfactory, it can be returned at our expense.

WRITE FOR OUR CATALOG TODAY.

The American Furnace Co., 1911-15 Pine Street St. Louis, Mo.



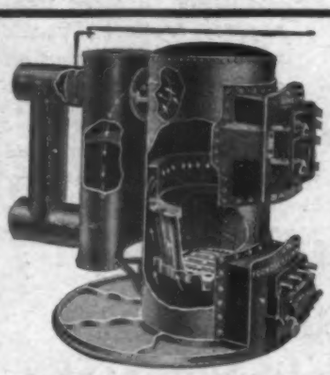
YOU WHOSE BRAIN SELLS THE FURNACES!

YOU WHOSE BRAIN BUILDS THE BUSINESS!

YOU WHOSE BRAIN MAKES THE PROFIT!

Go for a trip over the line of furnaces you are now selling by comparing same with the line of

GREEN FURNACES



Perhaps you will find some feature which will readily appeal to your customers; perhaps you will find that the Green Furnaces combine all of the features on the furnace you are now selling and a dozen more; perhaps you will find a furnace which will appeal to your customers so well that they will gladly pay you $25.00 to $30.00 more than for the furnace you are now selling—this means extra profit to you—even if you find but one furnace in the line which excels your present line and your competitor's you will be well repaid.

Yet if you send for a catalogue you will find a line of modern, up-to-date furnaces, some all cast, some all steel, some part cast and part steel; furnaces for soft coal, hard coal or wood, high priced or low priced furnaces, a furnace to fit the ideas of furnace construction in the mind of each of your customers, furnaces to meet the demands of your trade.

Are you going after the business in 1909.

If so you are the man we are looking for—the progressive man, the man who is looking for something better, the man who is trying to give his customers the best, the man who is building his business. We are closing agencies every day. Do you have the agency for our line in your city?

Write us for Catalogue and Discounts.

GREEN FOUNDRY & FURNACE WORKS

Dept. A **DES MOINES, IOWA**

LINCOLN STOVE REPAIR CO., Lincoln, Neb.
State Managers for Nebraska.

ROWE CONSTRUCTION & HEATING CO., Watertown, S. D.
State Managers for South Dakota.

IT'S PROFIT YOU'RE AFTER

Would you refuse to increase your profit without taking any chances? CERTAINLY NOT.

Then accept the exclusive agency proposition offered for

"MUELLER" FURNACES

A line of heaters well known wherever furnaces are sold.

A heater that stands in a class of its own—unequalled for Power, Durability, Economy.

It is out of the competition class.

Easier sales, and at a much greater profit than can be made on competition heaters.

Result—INCREASED SALES and INCREASED PROFITS —for you.

Get in line—write NOW for the Agency.

L. J. Mueller Furnace Company

Established 1857 **191 Reed Street, MILWAUKEE, WIS.**

It Will Pay You

to illustrate your advertisements in your local papers. A sheet of comic advertising cuts sent on application.

These cuts are furnished with catchlines showing their application to the hardware, stove and tinners' trades.

Address

DANIEL STERN

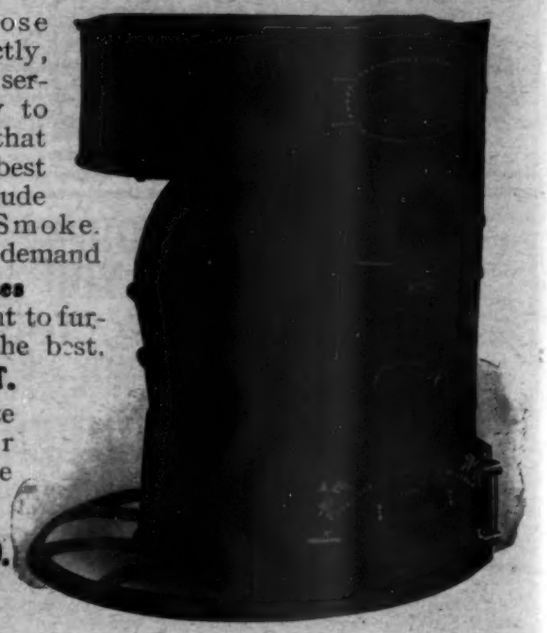
358 Dearborn St., - CHICAGO

GOOD FURNACES

nowadays are those that heat correctly, give satisfactory service, that are easy to operate, save fuel, that are made of the best materials and exclude Gas, Dust and Smoke.

Your customers demand **Good Furnaces** and you surely want to furnish them with the best. **Ours are the BEST.**

Write for complete descriptive matter which will convince you.



Walter S. Rait & Co.

211-213 Lake Street, Chicago, Ill.

Announcement! Wrought Steel

Floor or Wall

We announce that our Self-locking Glide Movement **Wrought Steel** Registers and Faces, as well as our New Semi-Steel goods, are made by us in our own Factory and under our exclusive patents.

A complete stock of all sizes on hand. Send for descriptive matter.

Tuttle and Bailey Manufacturing Company

New York **Chicago** **Boston**

Goods Well Displayed Are Half Sold

That is why those dealers who are most careful about the appearance of the articles in their show windows are the last ones to complain of poor business.

They are the practical business men who never neglect to grasp a good opportunity and they are the fellows who are going to compete for the

$100.00 IN GOLD

which THE AMERICAN ARTISAN if offering in its

Window Display Competition

Dont fail to enroll yourself as one of them.

$50.00 $50.00 in Gold for photograph and description of Best Window Display of Hardware.

$25.00 $25.00 in Gold for photograph and description second in excellence.

$15.00 $15.00 in Gold for photograph and description third in excellence.

$10.00 $10.00 in Gold for photograph and description fourth in excellence.

CONTESTANTS—Any hardware dealer, or his assistant or clerk, is eligible to this competition.

TIME—The photographs may be sent by mail or express, charges prepaid, and must reach this office not later than noon, March 15, 1909. Address all photographs to

THE AMERICAN ARTISAN PRIZE COMPETITION
355 DEARBORN STREET, CHICAGO, ILL.

CONDITIONS—Each photograph must be signed by a fictitious name or device, and the same name or device must be put upon a sealed envelope, containing the real name and address of the contestant. This sealed envelope is to be enclosed with the photograph.

AWARD OF PRIZES—A Competition Committee of three, one of whom will be an expert window dresser and one an experienced hardware man, will pass upon all photographs and descriptions received within the prescribed time and will decide between the contestants.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions of same submitted in this competition.

ROBINSON, MARTIN & JONES,
19-22 MANN BUILDING,
UTICA, NEW YORK

MILTON E. ROBINSON RICHARD R. MARTIN
E. WILLARD JONES

PATENTS GENERAL PRACTICE

Utica, N. Y., December 19th, 1908.

Smith & Hemenway Co.,
108-110 Duane St.,
New York City.

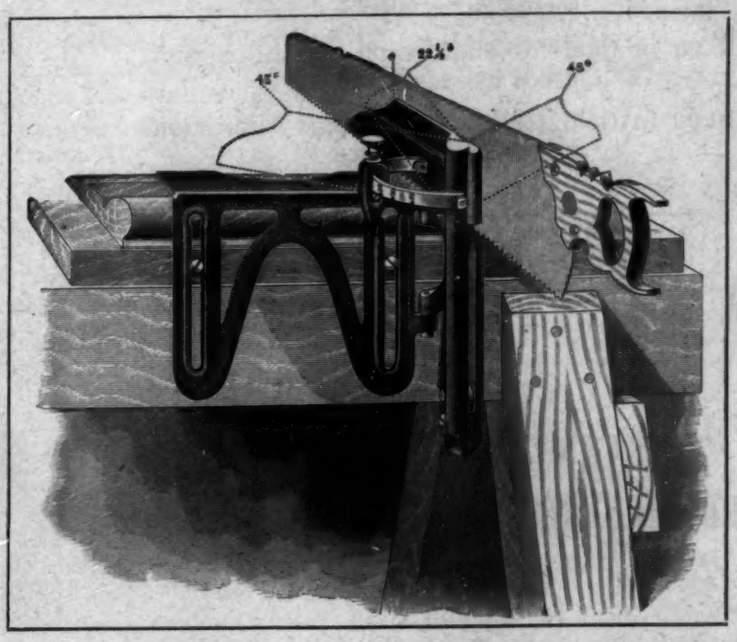
Gentlemen:

We are pleased to inform you that in your suit against E.C. Stearns & Co. of Syracuse, N. Y. for infringing the patent on the Seavey Mitre Box and Saw Guide, we have received opinion (copy enclosed) from the U. S. Circuit Court of Appeals, Second Circuit, reversing the decree of the lower court and holding the Seavey patent valid and infringed by the E. C. Stearns & Co. device and ordering an injunction and accounting. This is the final appeal. We will have the injunction issued and served promptly and proceed with the accounting proceedings. You are entitled to recover the profits Stearns & Co. have made and the damages you have sustained by reason of their unlawful infringement. They will be ordered before a Master with their books to be examined by us to get the facts.

If there are any other infringers (including jobbers, dealers or users) that you desire to prosecute, there is no need of delaying longer. Against any such an injunction can be had at once and the formalties of the suit and collection of the profits and damages would follow in due course.

Yours truly,

R-C. Robinson, Martin & Jones



"SEAVEY"
MITER BOX

LIGHTEST, LATEST,
SIMPLEST AND
MOST ACCURATE

"IMITATION IS
THE SINCEREST FLATTERY"

SMITH & HEMENWAY CO.,

108-110 Duane Street New York City, U. S. A.

Write for the Fifth Edition "Green Book" of Hardware Specialties. Just out.

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES AND ITS POSSESSIONS, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES INCLUDING CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, Communications, and Remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
355 DEARBORN STREET, CHICAGO, ILL.

Entered as Second-Class Matter June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879.

CHICAGO, JANUARY 9, 1909.

ON January 1 the two-cent postage rates agreement between the United States and the German postal authorities went into effect. But it should be borne in mind by correspondents wishing to avail themselves of the cheaper postage that their letters must be marked as intended for steamships sailing direct from New York to German ports. Otherwise their letters will be sent by way of England and France and the old postal union rate of five cents will be charged.

MORE than 17,000,000 pounds of metallic aluminum were consumed in the United States during the year, according to the United States Geological Survey. This is an increase of over 2,000,000 pounds over the consumption in 1906, which amounted to 14,910,000 pounds. The great increase in domestic use predicted in the early part of 1907 was not realized, and the failure of the predictions is attributed in large part at least, to the falling off in demand toward the close of the year as a result of general business depression.

THE TOTAL annual mortality from accidents in the United States among wage-earning men is between 30,000 and 35,000, according to a bulletin of the Bureau of Labor. At least one-third, and perhaps one-half, should be saved by intelligent and rational methods of factory inspection, legislation and control, it is asserted. There were also approximately 2,000,000 accidents that were not fatal, curtailing the normal longevity among those exposed to the often needless risk of industrial vocations. The Bureau of Labor advocates a more earnest effort to profit by the industrial methods of European countries.

THE WORLD'S total gold output in 1908 was $427,000,000, against $410,555,000 in 1907, according to the preliminary estimate of Director of the Mint Leach. Gold production in the United States aggregated $96,313,256, an increase of almost $6,000,000. Silver aggregated 51,798,053 fine ounces, a net decrease of 4,700,000 ounces from the previous year. Africa yielded $165,000,000, an increase of over $13,000,000. Alaska, California, Colorado and South Dakota showed increases reaching altogether over $10,500,000. Decreases in Utah of 3,500 000 ounces, Colorado of 1,250,000 ounces, and Idaho of 1,500,000 ounces were notable in the silver output.

WAGES for more than 80,000 skilled mechanics in the building trades in New York City were fixed for the coming year at a meeting of the business agents of the various trade unions held on January 5. The wages, based on an eight-hour workday, were fixed as follows for the more important trades: Boilermakers and iron shipbuilders, $5; carpenters and framers, $5; cabinetmakers, $4; cement and concrete masons, $5; electrical workers, $4.50; housesmiths, bridgemen, iron workers, $4.80; metallic and wood lathers, $4.50; marble cutters and setters, $5; machinists of all descriptions, $4.50; plasterers, plain and ornamental, $5.50; plumbers and gasfitters, $5; painters, $4; decorators and gilders, $4.50; sheet metal workers, coppersmiths, tinsmiths, metal roofers, $4.50; stonecutters, $5; steam and hot-water fitters, hydraulic, pneumatic tube, etc., $5.

IN THE production of lead the United States leads the world, according to a statement issued by the United States Geological Survey. During the calendar year 1907, the statistics for which have just been compiled, there was produced in this country 365,166 short tons, or 33 1-3 per cent of all the lead produced. The production of Spain, its nearest rival, was but 18.7 per cent of the total. In 1907 the United States contributed more than 30 per cent of the world's production of zinc, according to advance sheets of mineral resources issued by the Geological Survey. The total production was 813,842 short tons. In consumption of spelter the United States also leads the world, using in 1907 228,509 tons out of a total of 796,855 tons, or nearly 30 per cent.

A CAMPAIGN to secure united action by the large business interests and commercial associations of the country for the passage by this Congress of a new law which will require a special education for consular careers, is being waged by the National Business League of America through a communication sent out by its general secretary in Chicago. According to the letter the proposed new law would be an impetus to the extension of the work of the consular training school, especially the one conducted at the George Washington University. The law which the league is urging seeks to bring about the merit system of examination, appointment and promotion of consuls; the creation of an examining board for consuls; a retiring pension for consular officials, and requiring the consuls to be familiar with modern languages, at least one other than English, and to be posted on the natural, industrial and commercial resources and commerce of this country, especially with reference to the possibilities of increasing trade with foreign countries. In urging the prompt passage of the new law the league in its appeal advisedly sets forth that a really

great consular training school can never be developed until there is a proper law.

Success and Moral Standards.

BEFORE a commercial organization at Toledo, Ohio, an Ohio congressman recently delivered an address on "the business man in politcal life," in the course of which he took occasion to say that while we should in nowise condone offenses in political or commercial life, the real responsibility can for the most part be traced to the people themselves—or at least to the degree of public spirit and the standards of morality of the great majority. This is a good deal of a truism, of course, and it is here interesting and pertinent only as leading up to and prefacing the following particular passages in the Ohio politician's outgiving:

"Success is worshiped, and in the formation of our judgment of the successful man the dividing line between uprightness and devious methods is not always well defined. When public officials are convicted of scandalous conduct the most probable theater of action for them is found in communities where standards of business and political morality are low. The crying evil is in the indifference of the great mass of intelligent and patriotic voters.

"The success of popular government in the United States is an inspiration to the whole world. It is not without its faults, which have been most glaring in the control of municipalities and in the influence of corrupt interests in shaping governmental policies."

It is true that "success is worshiped" everywhere and always, and not in these days any more than in those which preceded them or those making up all the ages since civilization began. The context to the Ohio man's remark easily projects an intimation that he regretted that success is thus worshiped, but felt that it is something in the nature of a necessary evil to be faced and reckoned with accordingly. It is one of the saving factors in human nature, however, that ninety-nine out of every one hundred people born into the world come sooner or later to pay homage to success, the only difference among them being that, inasmuch as "success" is a relative term—one man's apparent success being often regarded by himself and by others perhaps as failure—the same "god of success" is not universally bowed down to, but if one or another of them were not worshiped, material progress in everything desirable would lag, and in the course of time civilization would be halted.

We were all born to be rich in something, and in no field of human activity is there any real success that does not bring with it a measure of material wealth. And yet the pulpit, the press, the stage and the platform teem with all sorts of commonplaces in denunciation of the thirst for wealth—as if it were not a perfectly natural thirst created for a wise purpose! If, as was once remarked by Emerson, men should take all these moralists at their word and leave off aiming to be rich these same moralists would "rush to rekindle at all hazards this love of power in the people lest civilization should be undone." So much for the success that we all "worship" and really by right and by duty.

As to the formation of our judgment on just where uprightness in achieving success leaves off and "devious methods" begin, it is almost universally among fairly intelligent persons along the correct lines. That "moral obliqueness" once described as "gangrening a great business from top to bottom" was more imaginary than real, and blunted moral perceptions in men of intelligence are so far-and-away the exception and not the rule as to be something almost negligible. We do not worship the success that has been achieved by "devious methods," and there does not suggest itself at the moment any particular community in this country where the standards of business morality can be said to be actually "low."

British Patent Law Hurts.

AMERICAN holders of patents taken out in the United Kingdom might as well recognize at once that the new British patent act is destined to be applied to the full extent of its rigorous demand that they must manufacture their articles on British soil or suffer revocation of their patents. Last month a Belgian infraction of the law led to the prompt application of the penalty. Quite recently an American patent for sewing machines was revoked on the ground that the machines were not manufactured in Great Britain. The owners indignantly produced pieces which it could be proved were turned out on British soil.

"Perhaps that is so," curtly ruled the comptroller-general, "but the machines are not produced to an adequate extent on this side of the water."

It is understood that the Americans hurt in this particular instance have appealed, but the probabilities are that they will have no chance and that the comptroller's ruling will establish a precedent of such granitelike character that it will assure a full and clear working of the British patent measure.

As a matter of fact the British law promises to be even more prejudicial to American interests than the German law, against which the former was largely intended to militate. The sewing machine case is only one of a number waiting to be decided, it is said. These will be brought before the comptroller, who cannot initiate action himself but must wait until an application from some interested person or firm opens the way for his activity.

The British authorities evidently propose to teach Americans peremptorily that their consuls are wrong in informing them that they can make all the parts of an article patented in Great Britain in America and then assemble them on British soil in order to follow the spirit of the act. To all intents and purposes the letter as well as the spirit of the law will be applied.

The time is ripe for action to be taken by the United States Government in the way of enacting legislation that will give protection to American patents and to American industries. Numbers of European countries have undertaken this in the interests of their trade and the United States just now is away in the rear in this respect. It is to be hoped that the action taken by the American Hardware Manufacturers' Association in this direction will result in the much needed legislation on the patent question. The members of the association should do all in their power to influence their representatives in Congress to induce the government to take such measures as will benefit the association and American commerce at large.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

If the number 9 possesses the good luck attributed to it by persons inclined to superstition about such matters the year upon which we have entered ought to bring exceeding great prosperity. In the history of the United States instances might be multiplied to show that years ending in 9 have been notable, so it is not out of the way to expect a year carrying two 9's to be something above the ordinary. In 1837 we had the first great panic. In 1839 came the first great boom. In 1849 gold was discovered in California. In 1859 the gold-seekers rushed to Colorado. In 1869 began the era of reconstruction with its unexampled prosperity. In 1879 another readjustment of industrial conditions, especially in the South, marked another prosperous era. In 1889 began the boom that yielded to the panic of 1893. In 1899 the Klondike and the revival of business after the Spanish war started another boom. By all the laws of wizardry 1909 ought to cap the climax. If the prophets of blue ruin should all be muzzled there wouldn't be any doubt of that very thing coming to pass. We all growl and grouch once in awhile, as is the immortal privilege of the American, but, deep down in our hearts, we know that our little cause of complaint isn't going to stop the march of progress or prevent this great country of ours from working out its glorious destiny. The United States is on the high road to unprecedented prosperity, and inasmuch as 1909 seems to bid fair to be a particularly auspicious year, let us put the lid on the calamity howlers and keep it there until 1909 has shown us that it has made good, as it undoubtedly will.

* * *

A famine in pins was the unusual situation prevailing in Bellefontaine, Ohio, a few days ago. It is a condition that is said to be without precedent. A woman with a shopping list which contained the item "one paper of pins," made the discovery of the famine on January 4. The clerk at the first store visited by her returned with the statement "We are out of pins." The woman with the shopping list visited another store and there again the clerk said, "Madam, there's not a pin in the store." One store after another was visited and at every place the clerks made the same statement. The singular coincidence that every store in a city of 10,000 people should be without pins brought admissions from the merchants that it was one of those inexplicable things that sometimes happen. If it were a "teddy" bear famine that existed I could readily understand it, for "teddy" bears will after March 4 perhaps be a rather scarce article, seeing that after that date the "billy"-goat is scheduled to take its place. A pin famine is a new one on me.

* * *

I am informed that Geo. T. Oliver of Pittsburg will be selected by Republican leaders in Pennsylvania for election as United States senator to succeed Philander C. Knox, when the latter goes into President-elect Taft's cabinet as Secretary of State. Mr. Oliver, who was formerly president of the Oliver Wire Company of Pittsburg, is now a director of the Oliver Iron & Steel Company of the "Smoky City." He is also owner and manager of *The Pittsburg Gazette-Times* and *The Pittsburg Chronicle-Telegraph*, and is executor of the estates of the late Henry W. Oliver and James B. Oliver. It is with much gratification that I learn of another business man entering so actively into the political affairs of his state. Mr. Oliver has always taken an active interest in politics, although he has never been the holder of any political office. The time will soon come when we shall have more practical business men holding political offices in this country than we now have, and the sooner the better. Bills are constantly being introduced into the legislature of a character that would work much harm to our industries and trade, and we need many men of Mr. Oliver's type to safeguard the welfare of our commerce. The cry should go out for more "watch-dogs" in the legislative bodies of the United States.

* * *

From the accompanying sketch, which is a reduction of that recently distributed by the National Association of Master Steam and Hot Water Fitters, there is an opportunity for many of us to learn a lesson that should prove of inestimable value. The sketch depicts the man who "got the job," but he

The Successful Bidder—"What did I forget?—all—"

really looks like the fellow that never landed a decent one in his life. The lesson to be learned is really this: "Charge enough for your work and don't fail to include in your estimate every item of expense incurred." To the sheet metal worker, the furnace man and hosts of other trades this advice should appeal. How often has it occurred that a tradesman is awarded a contract for a job that never should have been his simply because he was the one who "made the mistake" in estimating the cost of the work, as he afterwards realized? The "successful bidder" is not always the most successful business man. The disappointment that results in losing a contract is not to be compared with the chagrin that the "successful bidder" experiences when he finds out that he has lost money on the transaction.

* * *

The *Montgomery* (Mo.) *Standard* has a poet who is "strictly business." He sings in this strain:

Just a card is all you care for—
Hidden, lonesome and unread,
Like the sign upon a tombstone
Telling folks that you are dead.
Wake up, man, and take a tonic,
Bunch your hits and make a drive,
Run a page, and change your copy,
Advertise and keep alive!

News Siftings

S. H. Landcraft, who has been representing the Sheridan Stove Mfg. Co., of Quincy, Ill., in the East, has been transferred to territory in Iowa and northern Missouri.

The Troy Nickel Works, Albany, N. Y., are sending out as a souvenir a miniature calendar inclosed in an attractive little frame advertising the fact that "Alaska" stove hardware is always cold. A very pretty little picture in a number of colors in which a fair damsel is shown carrying in her arms a bunch of American Beauty roses, is the principal feature of the souvenir.

The Sidney Hollow Ware Co., Sidney, Ohio, are sending out their catalogue No. 20 of "Sidney" cast-iron and nickel-plated hollow ware, stove and hardware specialties. Among the articles illustrated and described in the catalogue may be mentioned skillets, griddles of various kinds, bowls, various types of kettles and pots, Dutch ovens, roasters, egg poachers, molds, gem pans, ladles, iron heaters, pokers, lifters, broilers, waffle irons, stove lids, gas burners, sugar kettles, furnace tops and grates, etc.

The Portsmouth Stove & Range Co., Portsmouth, O., announce that they are at work on the patterns of a full line of gas ranges and heating stoves which they will have ready for the Spring trade. The company advise that these goods will be strictly up-to-date, having all the latest points that experience has proven to be desirable, besides some of their own "patented" good things that will be exclusive to their "Equity" gas line. They state that they have been just as careful to eliminate all useless and dangerous features as they have to adopt all good safe ones. The company believe that the quality and prices of their products will merit a good share of patronage.

THE "ROUND OAK" ANNUAL GREETING.

The Estate of P. D. Beckwith, Inc., Dowagiac, Mich., manufacturers of "Round Oak" stoves, ranges and furnaces, are sending out their "Round Oak" Annual Greeting, in which they state that notwithstanding the recent depression they have been enabled to continue unbroken their record of increased business every year. They report that their shops have run steadily on full time every working day, and a great many nights all the past year, keeping their regiment of "Round Oak" employes working all the time. They fully realize that this cheerful, encouraging situation has been brought about entirely by the loyalty and co-operation of their customers, and they believe that "Round Oaks" will make the highest sales mark in 1909 in the history of the company. They have constructed, during the past year, a two-story brick building 90x110 feet. The second floor houses their nickel plating and enameling department, and they state they are now in a better position than ever to turn out the finest stove nickel work known to the art. In their Annual Greeting they call the attention of the trade to a few changes which will be made in their line for 1909.

COMMITTEES OF PENNSYLVANIA STOVE SALESMEN.

At a meeting of the Stove Salesmen's Association of Pennsylvania, held in Philadelphia, on December 30, the following committees were appointed by President Wm. F. Habicht: Executive committee, chairman, Walter T. Hallowell, Frederick Sabin, James R. Wotherspoon; relief committee, chairman, O. M. Fagley, Robt. Garrett, Joseph Gammell; delinquent committee, chairman, W. W. Farr, G. M. Millspaugh, Chas. Baessler; auditing committee, chairman, Geo. W. Wagoner, Jos. S. Wise, W. E. Russell; entertainment committee, chairman, H. E. Borzell, A. A. Miller, Hugh B. Dunlap; trustees, John R. McKnight, James R. Wotherspoon, Hugh B. Dunlap. The meeting was a very enthusiastic one and all the affairs for 1908 were wound up. The association is reported to be in a very healthy condition, financially and otherwise.

DICKEY PATENT PLANISHED SHEET STEEL.

The Ward-Dickey Steel Co., Indiana Harbor, Ind., are sending out a neatly printed folder advertising the well-known Dickey patent planished sheet steel, with the imported Russia iron finish. This steel is finished under powerful planishing hammers and is made in gauges 18 to 28 inclusive, regular sizes being 28 and 30 inches wide by 60, 72 and 84 inches long. Several interesting testimonials are printed in the folder from those who pay tribute to the excellent qualities of Dickey planished sheet steel. The Ward-Dickey Steel Co. will be pleased to make quotations upon specifications. When writing them kindly mention THE AMERICAN ARTISAN.

GENERAL CATALOGUE OF THE S. OBERMAYER CO.

The S. Obermayer Co., Cincinnati, Chicago and Pittsburg, have just issued their big 370-page general catalogue No. 40, in which is described and illustrated "everything you need in your foundry." The S. Obermayer Co. was founded in September, 1874, and the history of the company, its rapid growth, etc., forms the subject of a very interesting article which prefaces the big catalogue. The S. Obermayer Co. state that they are the largest manufacturers of foundry facings and supplies in the world, and the largest importers and refiners of East India, Ceylon, Italian and German graphite in the United States. They state that they use nothing but the best and highest quality of crude material in the manufacture of their facings, all crude material being analyzed and tested before it enters into the process of manufacture. They keep in their employ practical molders who are thoroughly acquainted with the method of manufacturing products from metals in all their diversity, whether steel, stove plate, green or dry sand castings, brass, bronze or aluminum. Among the numerous products of the S. Obermayer Co. listed in the catalogue may be mentioned: molders' brushes of various descriptions; flue and spiral tube steel wire brushes; National iron filler cement; "Kantbebeat"

dry core compound; fluorspar for furnaces or cupola; "Peerless" stove putty; "Peerless" dry core compound; molders' mallets; foundry bellows; foundry galvanized and patent foundry buckets; wall torches; foundry brooms; molders' shovels; Obermayer gate rakes; riddles; steel baskets; sand screens; Thompson's adjustable flask clamps and other types of clamps; the Obermayer and other types of snap flasks; pattern makers' supplies, etc., etc. When writing the S. Obermayer Co. kindly mention THE AMERICAN ARTISAN.

THE OVEN OF THE "PRINCESS" RANGE.

The Allen Mfg. Co., Nashville, Tenn., are sending out an attractively gotten up folder describing in detail the oven in their well-known line of "Princess" ranges. The oven, they claim, is one of the strongest features of this range. It heats quickly, and the heat is so sustained and so uniformly distributed that it will bake properly and evenly in any part. The walls are of 16-gauge steel and are carefully braced to prevent warping. The bottom is seamed to prevent buckling, and will always stay level. Particular attention has been paid by the Allen Mfg. Co. to the side of the oven next the fire. Here they have put an extra steel plate with heavy asbestos lining between it and the oven wall, thus providing ample protection against burning out the oven. The inside of the oven is aluminized, making an exceptionally neat, attractive finish and lighting up the interior. The oven has no dark corners in which dirt and dust may accumulate, and is easily kept clean. When writing for prices of "Princess" steel ranges kindly mention THE AMERICAN ARTISAN.

SOUTH BEND RECEIVERSHIP SUIT ENDED.

A sensational suit for a receivership for The Malleable Steel Range Mfg. Co. of South Bend, Ind., brought by Irving A. Sibley, former president of the company, was ended on January 4, when J. D. Oliver purchased the interest of Mr. Sibley and F. C. Raff, the transaction, it is reported, giving the plow millionaire the controlling interest in the concern. It is stated that improvements to the amount of $150,000 will be immediately made to the plant. Mr. Sibley alleged that Harry A. Engman, Jr., president, Jacob Woolverton, vice-president and treasurer, and Wm. L. Kizer, secretary of the company, conspired to prevent him from securing any returns on his investment. Negotiations for the purchase of the stock of Mr. Sibley and Mr. Raff had been opened but a short time ago, and the deal had not consumed much time. The amount paid for Mr. Sibley's stock is said to be close to $100,000.

Mr. Sibley was president of the company when it was incorporated in 1902, and up to last year held office. With the sale of his stock, Mr. Sibley no longer has an interest in the concern, and, therefore, no longer has cause for action against the officers of the company. In an interview Mr. Sibley stated that he wished to refute a report to the effect that he claimed in the affidavit that the defendants to the suit had consumed all the profits and earnings of the company in salaries voted to themselves. "This would be impossible," said Mr. Sibley, "as the earnings of the company, since it started, have been between $400,000 and $500,000. I naturally hated to dispose of my holdings in the company, as it was I who organized the concern, and built up the business, but I simply took advantage of the opportunity offered for getting what the stock was worth." President Harry A. Engman of the company has announced that the officers of the concern and the administration of its business will remain unchanged.

THE CHAMPION INTERCHANGEABLE RANGE.

The Champion Steel Range Co., 3950 W. 25th St., Cleveland, Ohio, report that they are having an unusually successful season with their Champion Interchangeable gas and coal range. This is not a combination range nor a coal and gas range bolted together, but an interchangeable range that in five seconds can be changed from coal to gas or from gas to coal without disconnecting a pipe or removing a bolt. The Champion Interchangeable gas and coal range has burners under the covers for heating the top, which can be swung in or out by a lever. The pipe to which these burners are attached is connected to the upright pipe with a swivel joint, which has an automatic shut-off, that prevents any escape of gas when the range is changed to and for burning coal. The burners also have adjustable valves and air mixers so that either natural or artificial gas may be burned. Another strong feature of this range is that it has a separate burner in the oven, which is supplied with air fed through the company's patent double flue and hollow flue strip. This is said to give perfect combustion. By using this patent oven burner, all the heat produced being in the oven and retained there, the fullest benefit of all gas consumed is given, which means a great saving of fuel. The oven has a double top made so as to distribute the heat uniformly and carry off the fumes. When writing the Champion Steel Range Co. for descriptive literature and prices kindly mention THE AMERICAN ARTISAN.

"RELIABLE" GASOLENE STOVES.

Schneider & Trenkamp Co., Cleveland, O., division of the American Stove Co., state that the "Reliable" gasolene stove, manufactured by them, is the quickest selling summer stove that the market affords, its handsome appearance immediately attracting the attention of the prospective buyer and arousing his interest. There are 50 sizes and styles of "Reliable" vapor stoves and ranges made and guaranteed by Schneider & Trenkamp Co., all of which are fully described and illustrated in their catalogue No. 36 A, which may be had for the asking. When writing for it kindly mention THE AMERICAN ARTISAN.

Do not think that advertising is simply a hit-or-miss affair. The right kind of publicity pulls business and if you pay for an ad that brings results, it is much better than filling your space with "copy" that does no good.

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 36 to 41 inclusive.

RETAIL HARDWARE CONVENTIONS.

Following is a list of the coming annual retail hardware conventions with the place of meeting and the dates when the conventions will be held:

Inland Empire, Spokane, Wash., Jan. 20-21.
North Dakota, Bismarck, Jan. 26-28.
Missouri, St. Louis, Feb. 3-5.
Wisconsin, Milwaukee, Feb. 3-5.
Iowa, Des Moines, Feb. 9-12.
Pennsylvania, Philadelphia, Feb. 10-12.
Nebraska, Omaha, Feb. 16-19.
New York, Rochester, Feb. 16-19.
West Virginia, Charleston, Feb. 16-18.
Illinois, Springfield, Feb. 17-19.
Kentucky, Louisville, Feb. 23-25.
Minnesota, Minneapolis, Feb. 23-25.
Ohio, Columbus, Feb. 23-25.
Indiana, Indianapolis, March 2-5.
South Dakota, Huron, March 2-5.
New England, Springfield, Mass., March 10-11.
California, Oakland, March 10-12.

The Retail Dealers' Hardware & Implement Association of Texas will meet at Dallas on Jan. 19, 20 and 21.

The Battle Creek Wire Fence Co. of Battle Creek, Mich., has been incorporated with a capital stock of $50,000.

The Republic Metalware Co., of Buffalo, N. Y., will erect a one-story addition to its plant for smelting purposes.

Norris & Marshall of Pell City, Ala., contemplate establishing a plant at Gadsden, Ala., for manufacturing shovels.

Fire on January 5 caused considerable damage to the plant of The Snell Mfg. Co., Fiskdale, Mass., manufacturers of auger bits. Repairs will be made at once.

The Mack Iron & Wireworks Co., Sandusky, Ohio, has been chartered by A. D. Mack, P. C. Mack, E. M. Blinn, J. D. Mack and J. T. Mack, with $50,000 capital stock.

J. J. Rutka has retired from the Clark-Rutka-Weaver Co., Grand Rapids, Mich. W. D. Weaver, secretary and treasurer, is now the active manager of the company.

A building permit has been granted the Northwestern Woven Wire Works for a factory building estimated to cost $16,000, at 30th and Clark Streets, Milwaukee, Wis.

Cornelius Van Houten, treasurer of the De Witt Wire Cloth Co., Belleville, N. J., died on January 2 at the age of 83 years. He was one of the oldest residents of that town.

Herman Justi, commissioner of the Illinois Coal Operators' Association and formerly a partner in the wholesale iron and hardware business of Hillman, Buford & Justi, Nashville, Tenn., died suddenly on January 1 in Chicago. He was born in Louisville, Ky., in 1852, and after leaving school entered the hardware business at Nashville. He is survived by a widow and sister.

The Sullivan Hardware Co. of Anderson, S. C., is having plans prepared for a warehouse, three stories high, 90x135 feet, to cost about $15,000. It will have 37,000 square feet of floor space.

Jos. F. Eberhard & Son of East Orange, N. J. has been incorporated with a capital stock of $15,000 to manufacture brushes. The incorporators are Jos. F. Eberhard, Jos. F. Eberhard, Jr., and Arline Eberhard.

The Wiener-Barnet Co. of Newark, N. J., has been capitalized at $500,000 to manufacture hardware, saddlery, etc. The incorporators are: Saul Wiener, Oscar Rundzieker, Fred M. Barnet, Jaques H. Manheim, all of Newark.

The Sanitary Stamped Wares and Specialties Co. of New York City has been incorporated with a capital stock of $50,000 to manufacture metal goods and hardware. The incorporators are Albert J. and M. W. Ean, and David Whitehurst.

Sharlow Bros. Co., New York City, has been incorporated with a capital stock of $10,000 to manufacture and deal in hardware, tools, stoves, etc. The incorporators are: William, Thomas and Charles Sharlow, all of New York City.

Announcement is made that G. N. Jacobi, who for the past 20 years or more, had been connected with the Reading Hardware Co., Reading, Pa., has resigned. Mr. Jacobi has held the positions of assistant-treasurer, treasurer and general manager of the company.

The Central Indiana Fence & Wire Co. of Kokomo, Ind., has been incorporated with a capital stock of $10,000 to manufacture and sell woven wire fence. The incorporators are Casper Butler, Robt. W. Butler, Ernest Walton, F. W. Mackie and Dr. Harvey C. Thomas.

The new plant of the United Wire Fence Co., Port Huron, Mich., has just been accepted by the officers of the company after an inspection. The plant is built in two sections, the first 48x132 feet, and the second 30x132 feet. The machinery is being placed as fast as received.

Wm. Winter, 49 years old, a hardware dealer at Braddock, Pa., died on December 25 of paralysis at Braddock. He was born in Saxony and came to this country 27 years ago, and engaged in the hardware business. He is survived by a wife, three sons and two daughters.

M. R. Warner & Son, Cromwell, Conn., manufacturers of hammers, have been incorporated with a capital stock of $80,000 by Chauncey M. Warner, Theo. M. Savage and Willis C. Warner. The concern will continue the manufacture of the Warner and Noble hammers.

That the year 1909 is to break all records in the hardware business was predicted at the annual meeting of the Simmons Hardware Company of St. Louis, Mo., held on January 4. The reports of the officers showed that the business of 1908 had been very satisfactory, in spite of the dullness of the opening months, and the company is making plans for a tremendous

trade this year. The officers elected are: President, W. D. Simmons; vice-presidents, James E. Smith, E. H. Simmons, F. J. Semple and G. R. Barclay.

Stuber & Kuck, Peoria, Ill., are sending out a circular advertising their "Handy" Egg Boiler, which is made to fit a tea kettle or any kind of vessel. With its use eggs will boil in water one-quarter inch deep, as the steam does the work. The "Handy" Egg Boiler is made of tinned wire and is packed one dozen in a box. When writing for prices kindly mention THE AMERICAN ARTISAN.

The Crescent Tool Co., Jamestown, N. Y., are distributing a catalogue and price-list of their line of wrenches and pliers. The company state that the presence of their trade-mark on any tool or mechanical appliance is a guarantee of best material and of workmanship, thoroughly worthy in every detail. The company authorize dealers to fully warrant "Crescent" tools to be free from imperfections in workmanship and material, and they state that they will replace, without charge, any tool that may prove defective in either particular.

Joshua S. Hulse, for many years prominent in business circles at Rockford, Ill., died at Rockford on December 31, after a protracted period of illness. He was born at Rock Run, Stephenson County, Ill., in 1846, and obtained his first experience in the hardware business in Chicago. He conducted a hardware store at Pecatonica, Ill., for 12 years. His store and stock were destroyed by fire and he then went to Rockford where he formed the J. S. Hulse Hardware Co., of which he was the secretary and treasurer. For a number of years this concern was one of the leading business firms in Rockford. He is survived by a widow and two children.

A Hartford, Conn., syndicate headed by Chas. L. F. Robinson, has purchased a controlling interest in the stock of the Colt's Patent Firearms Mfg. Co. of New York City. The company was bought about nine years ago by the interests now retiring from the management. In this period its bonded debt has been reduced from $1,200,000 to $590,000, and the $2,500,000 issue of stock has been placed on a 5 per cent dividend basis. Charles A. Morse and J. F. A. Clark have retired from the board of directors of the company and are to be succeeded by representatives of the new controlling interests. The sale had been announced in December last as a probability.

A new type of carpenter's level has recently been invented by a resident of Eugene, Ore. The mechanism of the level comprises a weighted pointer mounted to rotate vertically in a glass case filled with water or alcohol, so that both ends of the pointer are always visible. Concentric with the pointer is a circular scale, graduated in degrees, by means of which the exact slant of surfaces may be read directly. The lower end of the pointer may be graduated. The retarding effect of the liquid causes the pointer to come to rest almost immediately. When released from a horizontal position it becomes quiet in two seconds. The advantage of this level over the ordinary forms is that the exact pitch in degrees of any plane surface in any direction can be read by setting the level on or against it just as with ordinary levels.

MAHER & SON LIGHTNING ROD COMPANY MAKE IMPROVEMENTS.

Maher & Son Lightning Rod Co., Preston, Iowa, manufacturers of and wholesale dealers in pure copper cable lightning rods, fixtures and ornaments of all kinds, have just completed a large addition to their factory, and have added new up-to-date machinery of their own design, giving them greatly increased capacity so that they are now able to turn out more than five times as much copper cable as formerly. They are in a position to furnish almost any size copper cable desired and they are now pushing their 30, 32, 34, 36 and 40 wire cables. The 30 and 32 wire cables are made from No. 17 wire and the 34, 36 and 40 are made of larger copper wire. Maher & Son Lightning Rod Co. state that they use the purest copper they can buy, guaranteeing it to test over 99 per cent pure. In the twisting of all their cables, all ends of wire are twisted together and then soldered, making no loose splices. The company are now making all their own fixtures, and all their vanes are made of pure zinc and are full bodied. They claim to turn out the best cable and fixtures on the market, and at a price that will give the dealer a good profit. They are willing to ship a sample outfit so that the goods can be inspected, and if they are not found to be as represented, and equal to the best on the market at any price, they may be returned at the company's expense. On account of the increase made in the capacity of their factory Maher & Son Lightning Rod Co. have reduced prices this season, and are now in a position to quote prices that will give their agents a handsome profit. Maher & Son Lightning Rod Co. also claim to make the finest static machines on the market and are loaning them free with the first order for 2,000 feet. They will be pleased to hear from all dealers who are interested in their products, and to send samples and quote prices upon request. When writing Maher & Son Lightning Rod Co. kindly mention THE AMERICAN ARTISAN.

THE MAN WHO KNOWS HIS BUSINESS BEATS THE "GOOD FELLOW."

After all we say and do, we find there comes to us a satisfaction in dealing with the man who understands his business. We may give our trade to the good fellow for a while, but finally the man of merit wins. There's no use denying the fact that the man who knows his business some day gets into partnership with the man he is working for, or he starts in business for himself.

Time was when "good fellows" got most of the orders. They got their customers full and had high old times, but the business man who has got to go out for a "high old time" with a "good fellow" when he wants to give an order will "bust" nine times out of ten. The good fellow doesn't hold his job very long. He keeps changing. An order obtained by getting a customer full gives no satisfaction to either party. We are getting wiser, and "business is business" with people who know their business.

The man who is earnest, keeps a clear head and studies his business is the man who has a competence when he is fifty. The good fellow at fifty is a "has

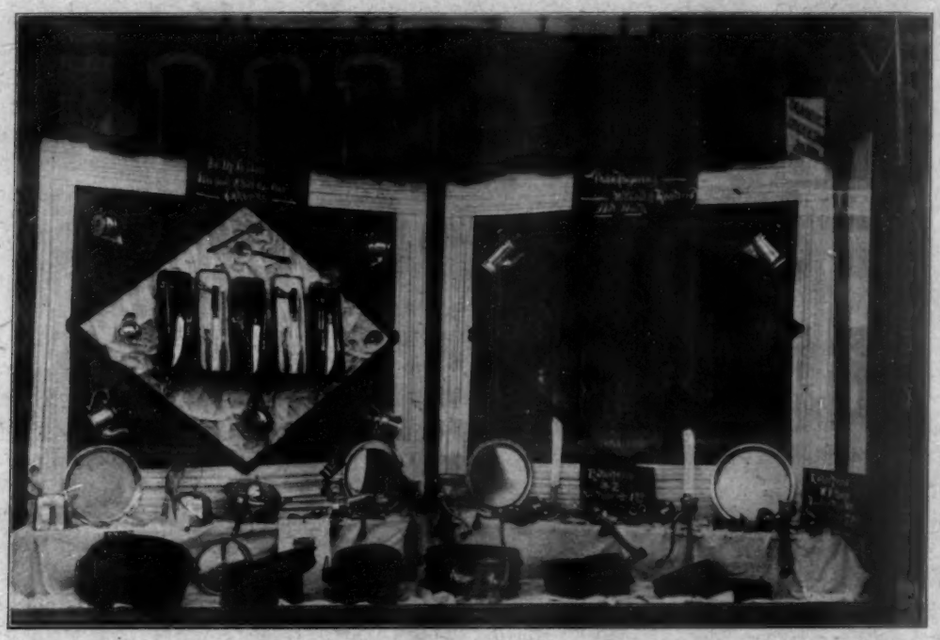
been," and works for the other man as shipping clerk for $40 a month.

Make people respect and like you for your brains and heart, and not because you are a good fellow. The word "fellow" is undignified. It doesn't seem to sound right or to fit the genuine successes in business.

Good fellows are found mostly where there is eating, drinking and gaiety, and are usually employes, not employers. They are a drug on the market. Good men are to be found wherever there are great undertakings and great requirements. Be a good man, not a "good fellow."—McMahon's Railway Magazine.

AN ATTRACTIVE THANKSGIVING WINDOW.

A window display that was the subject of much favorable comment by the judges in THE AMERICAN ARTISAN'S hardware window display competition, was that submitted by B. G. Moseley with the Bailey-Downing Hardware Co., Mason City, Ia. As will be seen from the illustration, the display made was a Thanksgiving one. The color effects were white, green and red cheesecloth and paper. In the left half of the display sets of carvers were placed in a white square with a narrow red border, the four corners of the square being covered with a dark green paper. The articles displayed in the window included food choppers, roasters, silver and nickel-plated ware, special prices having been placed on almost everything in the window. The dimensions of the window were 5x11 feet. It was lighted at night by a row of twenty 16-candle power lights. The window attracted considerable attention and was a good advertisement for the Bailey-Downing Hardware Co.



Honorably Mentioned by the Judges in THE AMERICAN ARTISAN'S Window Display Competition. Submitted by B. G. Moseley, with the Bailey-Downing Hardware Co., Mason City, Ia.

$100.00 IN GOLD FOR HARDWARE WINDOW DISPLAYS.

The hardware man who neglects to dress his windows attractively overlooks one of the most effective and most economical methods of advertising his business. There is no form of advertising that will bring greater returns to the retail dealer than a well-arranged window display. The more tastefully the goods in it are displayed the greater the impression does it create upon the person who stops to look at it. THE AMERICAN ARTISAN'S window display competition, in which $100.00 in gold will be given away, affords the hardware man an excellent opportunity to become more proficient in the important science of window dressing. Whether you win part of the $100.00 or not you will be amply repaid for spending a little time in getting up an attractive window by the amount of new business it will bring you.

A list of prizes to be awarded and the conditions governing the contest follow:

The Prizes.

The prizes will be awarded as follows:

First Prize, $50 in gold for the best photograph and description received of a window display of hardware.

Second Prize, $25 in gold for the photograph and description second in excellence.

Third Prize, $15 in gold for the photograph and description third in excellence.

Fourth Prize, $10 in gold for the photograph and description fourth in excellence.

The Conditions.

The conditions of the competition are as follows:

The photographs may be sent by mail or express, charges prepaid, and must reach this office not later than March 15, 1909. Address all photographs to THE AMERICAN ARTISAN Prize Competition, 355 Dearborn street, Chicago, Ill.

Each photograph and description must be signed by a fictitious name or device and the same name or device must be put upon a sealed envelope containing the real name and address of the contestant. This sealed envelope is to be enclosed with the photograph.

Award of Prizes.

A competition committee of three will be appointed,

one of whom will be an expert window dresser and one an experienced hardware man. This committee will pass upon the merits of all photographs and descriptions received, without knowing the names or addresses of the senders, and will decide the winners of the contest.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions submitted in this competition.

THE NEW MARLIN TRAP GUN.

The new Marlin Trap Gun has just been announced. This is the first special model made by The Marlin Firearms Company, New Haven, Conn., for trap work. It is a 12-gauge taken-down, 6-shot repeater, built with expert knowledge of trap-shooting requirements. No expense has been spared, the makers say, to make this gun the best handling, best shooting, most efficient trap gun in the world. It has a hand-made butt-stock of imported Circassian walnut, finely modeled, with the superb London oil finish and fine checking; it has the simplest, strongest, quickest repeating mechanism with highly polished operating parts. The special smokeless steel barrel is said to be unequaled for shooting. The high quality of material and workmanship makes the new Marlin trap gun handsome and distinctive, yet the excessive, expensive ornamentation has been eliminated, allowing the gun to be sold at the moderate price of $38.00, catalogue list, including a good profit for the dealer. It will also be made with butt-stock of any desired length and drop, at a slight additional charge. A descriptive folder with a large illustration of the gun in colors will be sent in quantity to any dealer who will address a postal card to The Marlin Firearms Co., New Haven, Conn.

The New Marlin Trap Gun.

CATALOGUE OF BEMIS & CALL HARDWARE AND TOOL CO.

Bemis & Call Hardware & Tool Co., Springfield, Mass., are sending out their latest catalogue and price-list of their extensive line of wrenches. The company announces that a modern plant equipped with the latest improved machinery and tools, together with an experience dating back to 1835, enables them to produce goods on most favorable terms, consistent with high quality and good workmanship.

The company's line of drive punches are made from a special grade of tool steel. The hole tapers back from the cutting edge so that the punchings clear freely and require only a slight blow to have them cut with ease. The body is highly polished, while the tube is colored a dark straw.

The timber scribes manufactured by the Bemis & Call Hardware & Tool Co. are used by coopers and lumbermen for marking letters and figures on barrels and on rough lumber. The handle of this tool is made from black walnut and provided with brass ferrule. Both cutters are made of carefully tempered tool steel and highly finished. The point is used as a center by which the end cutter is used to describe circular parts of letters and figures, while the side cutter is used in making the straight lines.

The Briggs pattern nut wrench, manufactured by the company, is provided with a long nut or sleeve whereby the whole hand can be applied in making adjustments, thus giving greatly increased power to the jaws on worn-out nuts. This wrench is especially useful in cold weather, as it can be operated with heavy gloves or mittens on. The long nut protects the thread and prevents it from being damaged.

In the construction of their monkey wrenches, Bemis & Call Hardware & Tool Co. state that special attention has been given to strength, durability, quality of material used, and finish. The head, bar and shank is a one-piece steel forging, carefully case-hardened by improved methods to withstand the severe usage which a wrench must meet. The wrenches described in the catalogue include the Merrick pattern nut wrench, the steel handle nut wrench, combination pipe and nut wrench and the improved adjustable "S" nut and pipe wrenches. When writing Bemis & Call Hardware & Tool Co. for their catalogue kindly mention THE AMERICAN ARTISAN.

RECENT CUSTOM'S DECISIONS.

TROUT FLIES.

In denying the contention of the Whitney Sporting Goods Co., of Denver, Colo., the board of United States General Appraisers recently overruled a protest regarding the rate of duty to accrue on importations of trout flies. It was the contention of the collector at New York that the merchandise should be returned for duty at the rate of 45 per cent under the provision in the law for "manufactures of metal." On the other hand, the importers set up the claim that the merchandise should be returned as "manufactures of gut," with a tax of only 25 per cent. General Appraiser Fischer, who writes the decision for the board, says that the trout flies are made in chief value of metal, and that therefore their classification as made by the collector must be regarded as correct. The importer's contention was accordingly overruled. Another protest raising a similar contention was filed by Wilfred Schade & Co., of St. Louis. The latter claim was also overruled.

KNIVES FOR CUTTING CORNS.

The board has handed down a decision in the case of Farwell, Ozmun, Kirk & Co., St. Paul, Minn., regarding the classification of knives for the cutting of corns. They were assessed for duty at the rate of 20 cents each and 40 per cent ad valorem, whereas

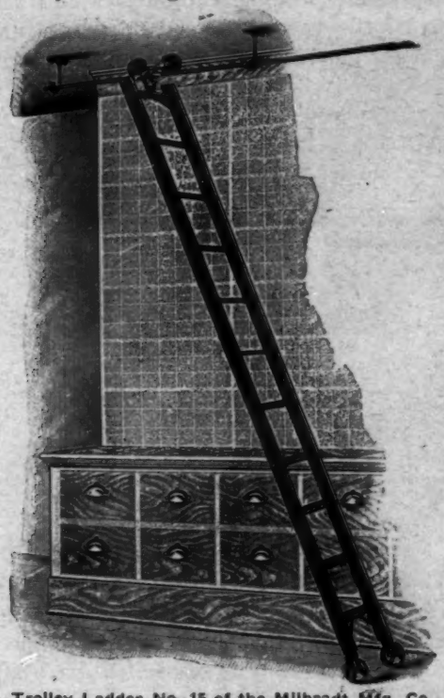
the importers asserted that the merchandise should be returned for duty at 45 per cent, as "manufactures of metal." The board found that the chief value of the articles is mother-of-pearl and that the knives should have been returned on that paragraph. As that claim was not made, the classification of the collector, although erroneous, was upheld.

COLD-DRAWN STEEL BARS.

The board has made a decision reversing the action of the collector at New York in exacting an additional duty on straightened cold-drawn steel bars. They were imported by E. H. Bailey & Co., of Philadelphia. Another protest regarding steel in strips was overruled by the board.

A NEW LADDER FOR STORE USE.

The Milbradt Mfg. Co., 1440 North Eighth St., St. Louis, Mo., report that storekeepers in all sections of the country are using their celebrated Milbradt rolling step ladders with very satisfactory results. The accompanying illustration shows the Milbradt trolley ladder No. 15 that runs on a steel track fastened to the ceiling. The ladder has attached at the top suitable iron in which paper-filled wheels run noiselessly on the track. This ladder is also equipped, at the bottom, with cushion-tired wheels that run on the floor. The Milbradt trolley ladder No. 15 is usually made of oak lumber, and in a good substantial manner, with sufficient incline so as to make it easy to climb, and is therefore, specially adapted for hardware stores, wholesale houses, or any business where heavy goods are handled. As this ladder runs independently of the shelving it is very often the most suitable to use when shelving is not so arranged that ladders can be conveniently applied to it. The steel trolley track is made of round tubing and rests in strong and artistic malleable iron brackets which are screwed to the ceiling as near four feet apart as possible, and so that the lag screws will enter the joists. The Milbradt Mfg. Co. will be pleased to forward their latest catalogue descriptive of this and of their other ladders and to quote prices on same. When writing kindly mention THE AMERICAN ARTISAN.



Trolley Ladder No. 15 of the Milbradt Mfg. Co.

RECEIVER ASKED FOR ROCKFORD HEDGE FENCE CO.

A receiver has been asked for the Rockford Hedge Fence Co. of Rockford, Ill., by a number of the stockholders, in order that the affairs of the corporation may be closed. The defendants to the action are R. P. Hamlyn, Harry Bingham, A. J. Lovejoy, Wesley Young, A. R. Graham and others. The company was incorporated in November, 1894. The complainants set up that R. P. Hamlyn has $1,400 belonging to the company and ask the receivership that the amount may be divided among the stockholders. The bill further avers that Harry Bingham has property of the company and asks that he be obliged to account for it.

THE CASE OF HAMMACHER, SCHLEMMER & CO.

In THE AMERICAN ARTISAN of January 2, an item appeared to the effect that Hammacher, Schlemmer & Co., 129 Fourth Ave., New York City, dealers in builders' and upholsterers' hardware, had pleaded guilty in the criminal branch of United States Circuit Court on December 23, to two counts of an indictment charging false billing of two shipments of piano-tuning pins, weighing 1,200 pounds in all. By shipping the tuning pins as iron screws, the concern was reported to have saved 15 cents per hundred pounds on the freight rate to Chicago, and 14 cents on the rate to Laporte, Ind. The fine imposed was $500 on each count.

The *New York Sun* of December 24 took cognizance of the indictment referred to in its news columns, and in that paper of December 26, the following letter was published over the signature of Hammacher, Schlemmer & Co., through the secretary of the concern, Dean Park:

"We notice in today's *Sun* the item regarding our indictment in connection with the prosecution under the Hepburn law for false billing.

"We pleaded guilty to the indictment, but there is a phase of the case which your article entirely conceals: the benefit derived from the reduced rate went solely to the receiver of the goods and not to us. We unknowingly committed the offence, but we received absolutely none of the results from the reduced rate—our sales being all f. o. b. New York.

"We have been continuously in business since 1848 and this is the first time that we have been accused from any source of any deviation whatever from absolutely 'law abiding' citizens, and it is rather hard on us not to mention in your article the fact that this was done through ignorance of the regulations on our part and without any profit whatever to us. You may be aware of the very great difficulty in thoroughly interpreting all of the classifications as imposed under the present system of freight shipping. We are quite positive that detail investigation would find almost every house in the country committing some offence of this kind, but in almost every case without the knowledge of the principals, as the work is entirely in the hands of shipping clerks and other employes.

"We are not attempting to excuse our offence, but we would feel very grateful indeed if you could find space to

present the other side of the story, for as the article stands it is a stigma upon our business name which we feel is unjustified under all the conditions."

CATALOGUE OF W. B. HELLER & CO.

W. B. Heller & Co., Montpelier, Ohio, are sending out their net price catalogue or "Simple System" book of Heller's standard steel hardware shelf boxes, bins, cases, drawers, cabinets and counters. By employing W. B. Heller & Co.'s "Simple System," hardware dealers can increase their sales by suggesting to their customers goods that they need as displayed on the fronts of Heller's shelf boxes. The "Simple System" is the construction of standard shelving in a dealer's store built by his carpenter. The shelving is built of ⅞-inch dry lumber, 30 inches between uprights, 6 inches between shelves, and 12 inches from front to back. In this shelving can be built display cases for saws, tools and miscellaneous goods, using glass doors, hinged or sliding, and which will add considerably to the appearance of the store. W. B. Heller & Co. state that the oldest hardware dealers in the United States and elsewhere have adopted their "Simple System" as the most practical for displaying, selling and systematizing their stocks. The fronts and backs of Heller's steel shelf boxes are of wood, ¾-inch thick, and the sides and bottom are pressed of one piece of cold rolled galvanized steel. The steel is embedded in the wooden ends by the company's own process, and secured by steel wire brads driven from the inside through both metal and wood, thus making a box not alone scientifically constructed but without any nails or rough edges on the outside. The top edges are double-turned in such a manner that strengthens the edges from any chances of buckling, and they will slide on top of one another. There is a depression on the side near the front which is enameled, upon which the cost and selling prices of the contents may be marked. There are also described in the catalogue Heller's standard base or counter drawers, pulls, card clips, sample holders, nail bin counters, sundry counters, glass board and sundry cabinets, screw and bolt cases, Heller's dust and mice-proof bins, tool brackets, adjustable shelf brackets for tinware, paints, etc., noiseless steel store ladders, etc. When writing W. B. Heller & Co. for catalogue kindly mention THE AMERICAN ARTISAN.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND CORPORATIONS.

Rogers, Ark.—The Benton Hardware Co. has been incorporated with a capital stock of $50,000.

Richmond, N. Y.—Gregg Bros. have been incorporated with a capital stock of $20,000 to deal in hardware and household supplies, etc.

Carpio, N. D.—The Carpio Hardware & Implement Co. has been incorporated with a capital stock of $25,000.

Mt. Vernon, Wash.—The Hayton-Peck Hardware Co. has been incorporated with a capital stock of $30,000.

Jackson, Minn.—Paul H. Grattan has engaged in the hardware business.

Dayton, Wash.—J. W. Stevens Hardware Co. has been incorporated with a capital stock of $25,000.

Princeton, Ky.—The Eldred Hardware Co. has been incorporated with a capital stock of $10,000.

Lewis, Kans.—S. D. Misner has opened a hardware store.

Grafton, W. Va.—The Fortney Lumber & Hardware Co. has been incorporated with a capital stock of $5,000.

Lincolnton, N. C.—The Reid Hardware Co. has been incorporated with a capital stock of $25,000.

Bellefontaine, O.—The Churchill Hardware Co. has been incorporated with a capital stock of $15,000.

Geary, Okla.—The Moores-Hollister Hardware Co. has been incorporated with a capital stock of $10,000.

BUSINESS CHANGES.

Mt. Vernon, Wash.—T. R. Hayton has been succeeded by the Hayton-Peck Hardware Co.

Sandy Lake, Pa.—T. C. Smith has purchased the hardware stock of Arthur H. Tryon of Leroy, N. Y.

Green Valley, Ill.—Barkmeier & Champion have sold their hardware stock to Howard, Harry and Warren Keefer.

Mt. Gilead, O.—John P. Dumbaugh has purchased the hardware stock of the late J. H. Holt.

Farmer City, Ill.—Holmes & Son have sold their hardware and implement business to John Trinkle.

Vandalia, Mich.—Oscar Loubee has purchased the O. L. Odell hardware and implement business.

Montfort, Wis.—Chas. A. Kramer has sold his interest in the hardware firm of Bjerke & Kramer to Jos. C. Nowak.

Oxford, Ind.—Jas. P. Cooper has purchased the hardware stock of P. Smith.

Carsonville, Mich.—C. C. McGregor has purchased the hardware business of W. R. Harvey.

St. Louis, Mo.—The Brinkmeyer Hardware Co. has been succeeded by the Wittker Hardware & Contractors' Supply Co.

Raymond, Kan.—Irish & Eyman, hardware dealers, have been succeeded by the Boy Lumber, Hardware & Furniture Co.

Warsaw, Ind.—Liebrock & Gerard have succeeded Selden Weber in the hardware business.

Cherokee, Ia.—Keys & Cargin have succeeded C. W. Cisue.

Economy, Ind.—Wm. Swain has succeeded to the hardware business of C. M. Greenstreet.

MISCELLANEOUS.

Eugene, Ore.—The Berger-Bean Hardware Co. have moved into larger quarters.

Orange, Va.—The Ware-Watts Hardware Co., which recently suffered a loss due to fire, has resumed operations again.

Prosperity, Mo.—The stock of the Weeks-Betts Hardware Co. was recently damaged by fire.

Des Moines, Ia.—The Hansen Hardware Co. was damaged by fire.

Wilmington, O.—H. L. Campbell has leased a building on South street, for the purpose of opening a hardware store.

Brownsville, Tenn.—W. T. Bulletin's hardware store was damaged by fire.

Los Angeles, Cal.—Cass-Smarr & Damerel Hardware Co. suffered a loss due to fire.

Rockford, Ill.—The Seventh Street Hardware Co. is erecting a new building for their increasing business.

Burton, Neb.—H. D. Lewis suffered a loss due to fire.

Clinton, Mo.—The Meyer hardware store was burglarized.

Grammer, Ind.—Adams & Johnson suffered a loss due to fire.

Arlington, Kan.—The Arlington Hardware Co. is erecting a new building.

Spokane, Wash.—The McCabe-Johnson Hardware Co. have moved into larger quarters.

Advertising is the fine art of drawing attention to yourself and wares through the use of cold paper and black type. If your advertising, in general appearance, resembles all the other advertising done in your locality, if it is a general jumble of badly arranged type faces and unattractive, the chances are you have never found advertising very successful.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

The advertisement of the Paddock-Handschy Hardware Co. of Council Bluffs, Iowa, in which the White Lily motor washer is advertised, is a good one. The arrangement could scarcely be improved on, and the type selections are satisfactory. The ad is one from which good results might be expected, for the text, though brief, is well written and admirably sets forth the good qualities of the washing machine advertised.

The ad appeared in the *Council Bluffs Daily Nonpareil* of December 13, and took up four inches of space, two columns wide.

* * *

The advertisement of Geo. M. Sawens & Co. of Rochester, N. Y., in which the "Ideal Stewart" range is advertised is, generally speaking, a good one. The display head is a strong one and is of a kind to arouse the interest of the reader in the matter that follows. The ad is written in such a style that it can scarcely fail to command attention. It is unfortunate that the quoted word "Stewart" is divided in the twelfth and thirteenth lines, and it is equally as unfortunate that

the same word in the eighteenth line does not show up better by reason of the broken type. The general arrangement of the ad, however, is excellent. It appeared in the *Rochester* (N. Y.) *Democrat and Chronicle* of a recent date and occupied 4¼ inches of space, two columns wide.

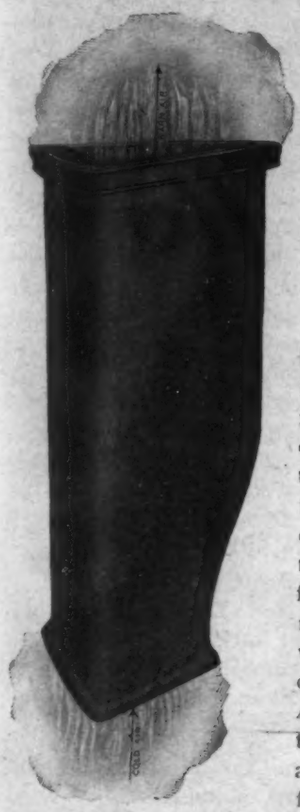
* * *

The Household Furniture Co. of Providence, R. I., have a very fine advertisement in that which is shown herewith in reduced form. Though there is not much matter in the ad, it nevertheless is a very attractive one, and is sure to command attention. The type that has been used is of a satisfactory character and shows up well. An ad of this kind is sure to be noticed in any paper. It appeared in a recent issue of the *Providence* (R. I.) *Evening Bulletin*, and took up five inches of space, four columns wide.

Heating and Ventilating

THE "FAULTLESS" SCIENTIFIC HEATER OF THE GRAFF FURNACE CO.

The distinctive feature of the "Faultless" scientific heater, manufactured by The Graff Furnace Co., 208 Water street, New York, is the sectional tubular radiator, shown in the accompanying illustration. Each "Faultless" heater has, according to size, from nine to twelve separate air heating flues. These flues are triangular in shape and larger at the top than at the bottom, thus allowing for the expansion of the heated air. Each flue, with its bottom extension, is 42 inches high. The products of combustion all pass between and around these flues and the cold air passes into the flues at the bottom. At the base of each flue is an extension which receives the cold air, and which brings it into direct contact with the fire-pot. All these flues overhang the fire chamber, and the amount of radiating surface obtained, by this construction, is very large. These air heating flues are heavy, and the constant circulation of air through them prevents them from burning out. The Graff Furnace Co.'s extension flue spaces around the fire-pot, are formed with cast-iron partition plates, and these are surrounded by a heavy sheet iron jacket. This arrangement is simple, and easily put together, and is said to be almost indestructible. When writing The Graff Furnace Co. for further particulars concerning the "Faultless" scientific heater kindly mention THE AMERICAN ARTISAN.



Sectional Tubular Radiator of the "Faultless" Heater.

A USEFUL LITTLE SOUVENIR.

The Utica Heater Co., Utica, N. Y., manufacturers of "Superior" furnaces and "Imperial" boilers, are sending out a very useful pocket memorandum book substantially bound and provided with a holder into which a pencil snugly fits. A number of well-printed cuts are shown of the company's line of furnaces, boilers, steam and hot water and hot air heating specialties. Some very interesting facts are given concerning postal matters, foreign exchange, the population of the United States, interest laws of states and territories, points of constitutional law, weights and measures, brief business laws, together with much useful mathematical information. Maps are also shown of the United States and its dependencies, calendars also appearing for the years 1909 and 1910. The little book which is being sent out with the compliments of the Utica Heater Co. will thus be found useful not only as a memorandum book, but also as a reference work. The company will be pleased to send this souvenir to any merchant who makes the request upon his business stationery. When writing for it kindly mention THE AMERICAN ARTISAN.

GOOD TIME FOR SALESMEN OF THE WISE FURNACE CO.

Christmas week was one of general good fellowship and business combined for the salesmen and managers of the Wise Furnace Company of Akron, Ohio, Wednesday night, December 30, seeing the end of a three days' session in which much pleasure was derived in meeting together and talking over the work of the past year and planning for the new year. Those present were "Pop" Williams of Bloomington, Ill., salesman for Illinois; W. G. Burks of Mexico, Mo., southwestern representative; W. R. Williams, Neenah, Wis., northwestern salesman; J. H. Russell, Ashland, O., representative; C. W. Bolender, Akron, eastern representative; D. S. Bray, Cleveland, northern Ohio representative, and O. A. Ross, Akron, city salesman.

In addition to these and a few others the following attended a banquet given to the salesmen by the company at Young's hotel at the Feeder on the evening of December 29: J. W. Myers, president of the company; W. G. Wise, secretary and manager; George W. Carmichael, vice-president; Crannell Morgan, treasurer; D. C. Siegfried, cashier. The dinner was the occasion of much enjoyment naturally, but at the same time business and the trade were discussed also. Remarks were made by most of those present and there was also plenty of music. The week began with a business session at the company's office on December 28, and a visit to the factory. That night there was a theater party. Tuesday another visit to the plant was had, and conferences were held that day and Wednesday. Wednesday noon the salesmen were entertained by Mrs. C. W. Bolender at the Bolender home at Howard and York streets, where an elaborate dinner was served. The favors were carnations. The dinner was followed with a smoker at the company's office.

The salesmen and officers of the Wise Furnace Co. report the past year as a profitable one, and say that the outlook for the coming year is bright.

KELLOGG-MACKAY-CAMERON CO.'S NEW LOCATION.

Kellogg-Mackay-Cameron Co., Chicago, announce the removal of their general offices and showroom from their old location, Twelfth St. and Michigan Ave., to 19-33 West Eighteenth St., Chicago. At this location they have fitted up commodious offices and show room, adjoining their warehouse, which is situated on the main lines of the Pennsylvania, Chicago & Alton, Pere Marquette, and on a siding of the Chicago, Burlington & Quincy Railroads, thus affording

convenient railroad and team trackage. They are fitting up their warehouse with improved facilities for the economical handling of merchandise. The general offices and warehouse being together will result in more prompt service to their customers. The company are putting in larger stocks of boilers, radiators, heating and plumbing supplies, as well as specialties in both lines, and they are now in a position to give their customers the benefit of prompt shipments and right prices.

AN ATTRACTIVE FOLDER FROM CHAS. SMITH CO.

Chas. Smith Co., 101 E. Lake St., Chicago, are sending out a unique and tastefully gotten up folder advertising their celebrated line of "Hero" furnaces and combinations. The folder contains a poem entitled "Perseverance Jim" which should be read to be appreciated. Chas. Smith Co. states that "Hero" furnaces make homes comfortable, make pleased customers, and that dealers who handle them are always cheerful. Attention is also directed in the folder to Smith's well known "Maltese" heaters. When writing Chas. Smith Co. kindly mention THE AMERICAN ARTISAN.

CATALOGUE NO. 20 OF THE MICHIGAN SAFETY FURNACE PIPE CO.

The Michigan Safety Furnace Pipe Co., corner Brooklyn and Abbott streets, Detroit, Mich., are sending out their catalogue and price-list No. 20, describing their well-known furnace pipe, which they say is the only sectional furnace pipe made in which the inner walls form the cross walls. The air chamber between the inner and outer pipe is at all times retained by means of a perforated spacing collar at each end of every piece and joint. This is one of the principal safety features of the pipe. The pipe being made in lengths of 26¾ inches and the short joints in lengths of 2½, 4¾, 8, 10¾ and 15¼ inches, enables the furnace man to construct any desired style of stack, no matter how short, how long or how crooked, without making or cutting a single piece or wasting an inch of material. Every joint and piece firmly embraces and fits into the other, so that when a stack is completed it is as smooth and straight, inside and outside, as the bore of a gun. The Michigan safety furnace pipe is made from high-grade bright tin plate, without rivets or solder, by special machinery. Twenty-five years of personal experience in putting up hot-air heaters has enabled The Michigan Safety Furnace Pipe Co., after years of experimenting in making pipe, to finally perfect a sectional wall pipe, which, they say, has proven to be all that they claim it to be.

There are also described in the catalogue, which the company is sending out, furnace fittings, elbows, register boxes, casing collars, hot-air and smoke-pipe dampers, and Michigan warm-air furnaces with steel-plate radiator. These furnaces are made in five sizes for hard coal, natural gas or coke. They are provided with a pouch in the feed section to receive coil, large feed and ash-pit doors, large combustion chamber, two-piece fire-pot with expansion cup, extra deep ash-pit with dust-flue and patent hexagonal revolving dumping grate. Michigan warm-air furnaces are handsome in appearance and are guaranteed to be powerful heaters. When writing The Michigan Safety Furnace Pipe Co. for their catalogue kindly mention THE AMERICAN ARTISAN.

A BOOK ON AUTOMOBILES.

"Self-Propelled Vehicles," is the title of a book which Theo. Audel & Co., 63 Fifth avenue, New York City, have recently published. The book, which is edited by James E. Homans, A. M., is a practical treatise on the theory, construction, operation, care and management of all forms of automobiles. The work treats especially of the practical care and management of motor cars, explaining the principles of construction and operation in a clear and helpful way. It is illustrated with many diagrams and drawings, making it of value to the intending purchaser of automobiles, the driver and repair man. The treatise on the gasoline engine will prove valuable to those interested in explosive motors. The book contains 608 pages, over 400 diagrams and illustrations, and is printed on a good quality of paper, with generously good binding. The price of the book is $2.00.

PARAGRAPHS.

Fowler & Hopkins of New York City have been incorporated with a capital stock of $5,000 to manufacture and erect heating appliances. The incorporators are Wm. J. Fowler, Eleanor Fowler, John Hopkins and Pauline M. Hopkins.

The American Ventilating Co. of Portland, Maine, has been incorporated with a capital stock of $500,000 to manufacture ventilating and heating devices. The officers of the company are: President, C. E. Eaton; treasurer, T. L. Croteau; clerk, J. F. Manter, all of Portland.

The XXth Century Heating & Ventilating Co. of Akron, Ohio, report a very successful season's business with their celebrated XXth Century furnaces. They state that the demand for these furnaces is increasing and they are looking forward to the year of 1909 with an unusual degree of confidence.

W. A. Cameron, formerly treasurer, A. H. Schroth, formerly assistant secretary, and A. S. Cameron, formerly purchasing agent of the Kellogg-Mackay-Cameron Co., Chicago, have embarked in the heating and plumbing supply business under the name of Cameron, Schroth, Cameron Co., and are located at 189-193 Michigan St., Chicago. They announce that they have secured the exclusive selling rights of "Richmond" boilers and radiators and will operate in the Middle West and Western states, selling to the trade only.

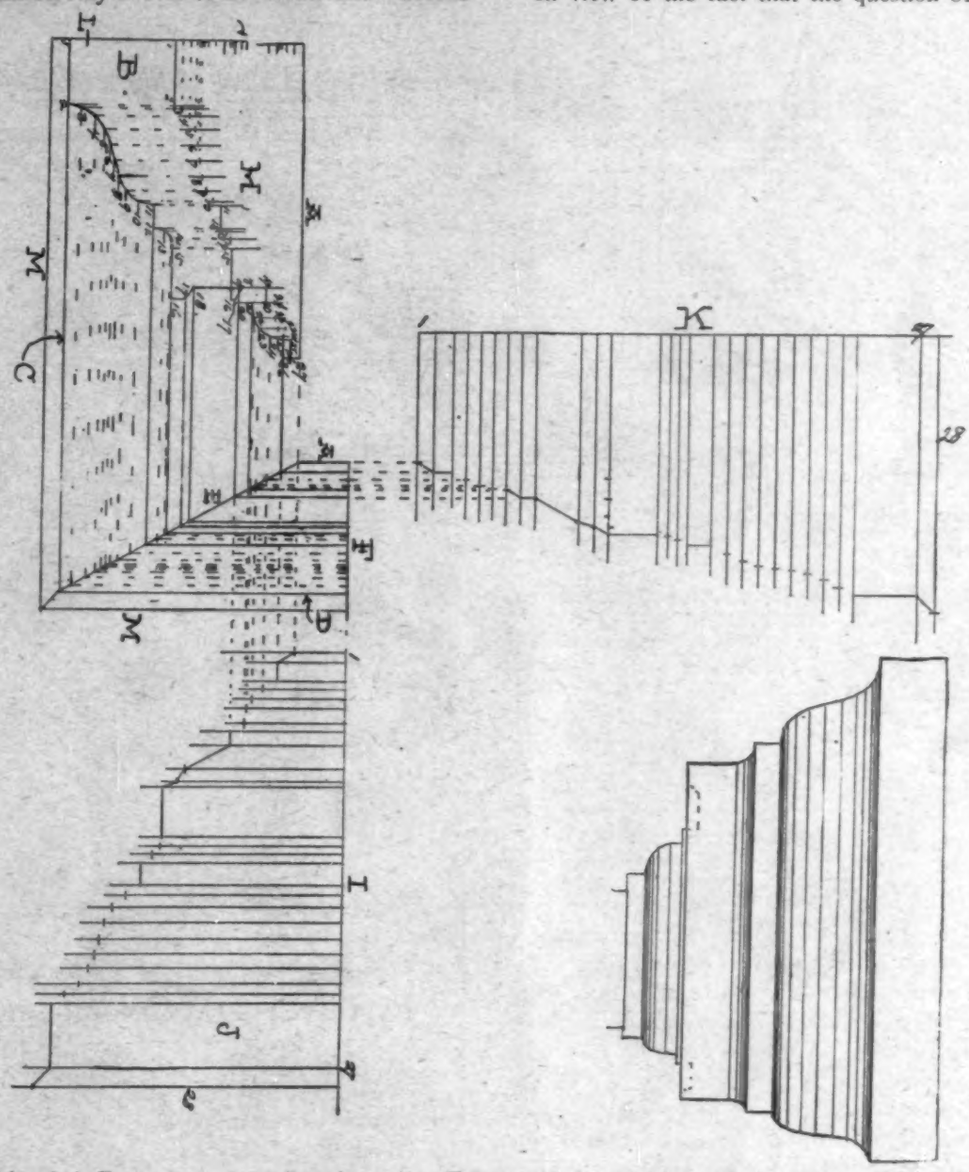
Do not imagine everybody knows you and your store—that you are so well known that there is no need to advertise. Your competitor will be much better known than you if you do not adopt modern methods and advertise.

Tinshop

METHOD OF REDUCING RETURN MITRE FOR ANY SHAPE MOLD.

BY O. C. PATTERSON.

Draw lines A A, representing wall lines. Place stay B with back resting on horizontal line A. Divide stay B as shown by figures 1 to 27 on outer edge. Draw A D width desired. Now draw line C width of stay B, and intersect with line D, and from point of intersection draw mitre line E to point A. Carry numbered points on stay B over to E. Draw line F according to width of A D; now carry points from line E up to line F; now transfer points on line F from A to D over to line G, working from line A to point marked L on line G. Now drop lines down to H intersecting with lines drawn from stay B, which will make reduced stay H. Now take the points on stay B and set off on line K, 1 to 27, drawing lines at right angles to K as shown. Now intersect the different points of E onto lines drawn from K, which will complete that part of pattern.



Now take distance of points on stay H and lay out on line I, 1 to 27, as shown; drawing lines from I carry points over from E and intersect at lines shown at I J. Line No. 28 represents point L and lines M, which should be turned in to stiffen top of mold.

TRADE OPINIONS ON ROOFING MATERIALS.

In THE AMERICAN ARTISAN of December 12, Goedecke & Jones of Knapp, Wis., requested information as to how long a 26-gauge galvanized iron standing seam roof would last, also how long a good tin would wear on a flat and pitched roof. Information was also sought concerning gravel roofing.

In view of the fact that the question of roofing is one about which much interest centers, this question forming a very important subject of discussion at trade conventions and other gatherings, THE AMERICAN ARTISAN respectfully solicits correspondence thereon from manufacturers and others who have had experience along this line. Names and addresses will be omitted if so desired.

From a La Porte, (Ind.,) Tinner.

To THE AMERICAN ARTISAN:

If I could sit down and write as I can talk from

experience on the roofing question, perhaps I could do some good. The roofing questions asked by Goedecke & Jones of Knapp, Wis., in THE AMERICAN ARTISAN of a recent date, should be answered according to the purposes for which the building to be roofed is to be used. For a laundry or boiler room I would say don't put on a metal roof of any kind, as it will not last long.

I have been working at this trade for many years, and I would say that if you want to secure good lasting service from a tin roof have the job done by a man that *knows how*, not the hustler that is so much in demand now-a-days, who tells how much he can do in a day. I will cite an instance of where I put on about 30 squares of roofing for my employers where the owner wanted the best he could get. They received $10 per square for charcoal iron base 25-pound coating, 20x28 sheets, not painted on the under side, and flat roofing. After the first rain rust began to appear. Now who is to blame if this roof does not last? The owner will not put on another, and he will condemn all tin plate and put on some other material. Another instance where the specifications called for a well-known standard grade of tin plate a 25-pound coating was substituted. Is it any wonder that tin roofing has not achieved the popularity which it deserves?

Galvanized iron or tin roofing will last many years if put on right, unless there is something under the roof that will destroy it, such as sulphur fumes from soft coal, steam, etc. I have known tin roofing that was on for 45 years. A TINNER.

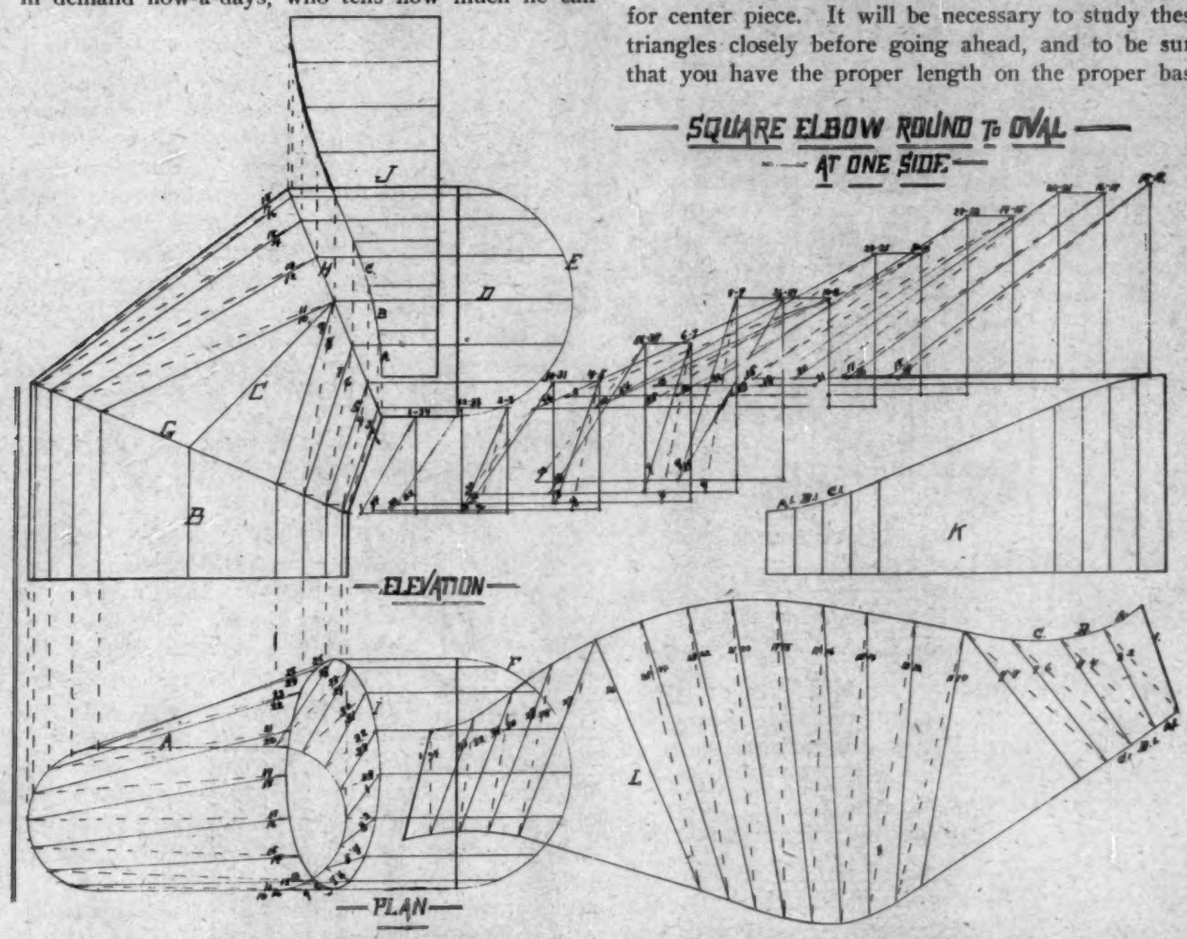
La Porte, Ind., Jan. 6, 1909.

SQUARE ELBOW ROUND TO OVAL AT ONE SIDE.

BY G. L. GRAY.

First draw oval end A in plan, and center lines B, C, D in elevation. Draw half circles E and F, and space equally, and also oval end A, as shown. Draw lines from points in circles to miter lines G and H, and also in middle section. Drop dotted lines from points on miter line H to cross lines drawn from circle F. Draw oval line I; then draw all lines in plan, connecting points and number as shown.

Draw half patterns J and K and construct triangles for center piece. It will be necessary to study these triangles closely before going ahead, and to be sure that you have the proper length on the proper base line. After you have the triangles finished, make full pattern L. Be sure and make the spaces between numbered lines the same as marked by small letters.



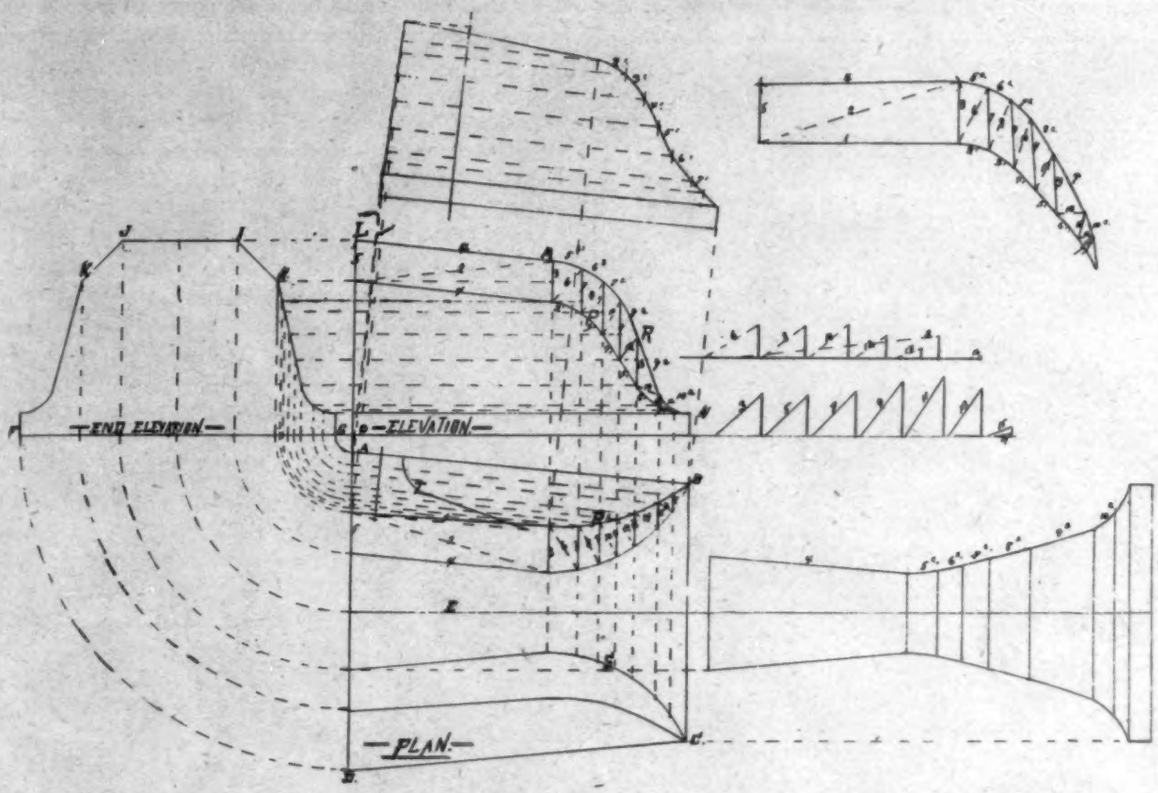
PATTERN FOR AUTOMOBILE HOOD.

BY G. L. GRAY.

To draw hood, first draw plan as A B, C, and center line E; then end elevation as F G H I J K, and also side elevation as L M N O; then draw lower line of narrow strip as P, and space equally. Divide last space into two parts on account of small radius; then draw dotted lines to end elevation, and also to plan, as shown. Drop dotted lines from points on line P to cross lines just drawn, extending these lines to R and S. Then take a tracing part of end elevation and place in plan as T; then for pattern for sides draw stretchout at right angles to line A B, and for spacings take a true profile T. Draw dotted lines to cross lines drawn from points and draw line through these points giving pattern for sides. Then, for pattern for top of

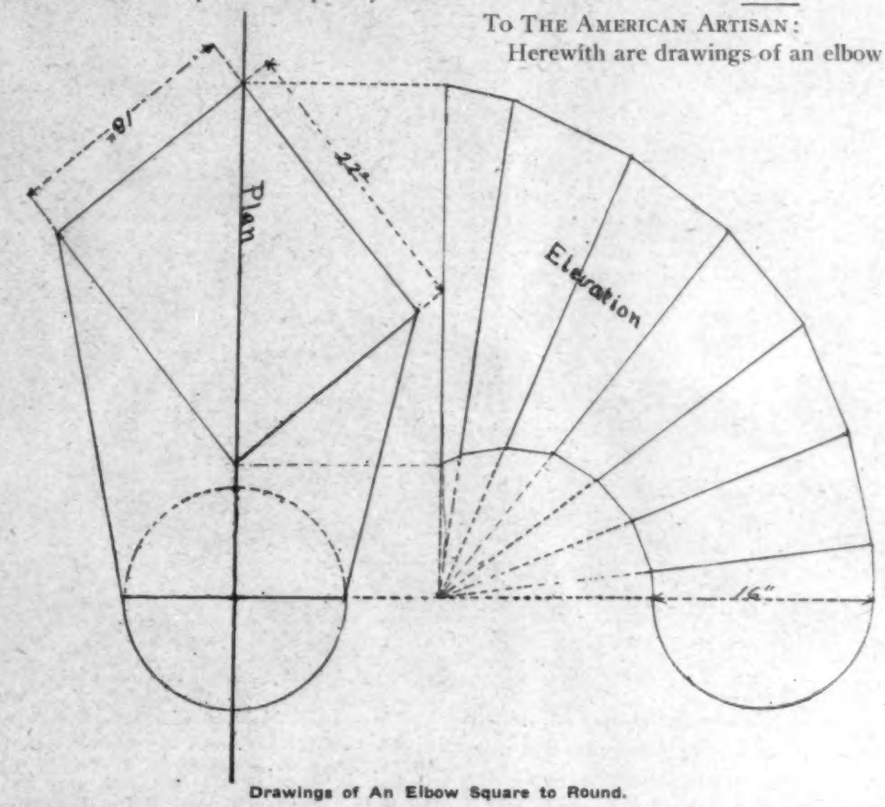
center piece continue center line E in plan indefinitely, and take spaces from elevation as L to M, and spaces

AUTOMOBILE HOOD.



on R from M to N. Draw dotted lines from points to cross these lines and draw through points giving pattern for top.

The pattern for narrow strip is developed by triangulation. Construct triangles as shown for the height of dotted lines. Take height from elevation, as shown, and the length from plan. To draw pattern, start with line No. 1, and then No. 2, and so on. For spaces take from side pattern and also from top pattern, as 5-2, 6-2, 7-2, etc.



Drawings of An Elbow Square to Round.

A CORRECT PATTERN WANTED FOR THIS.

To The American Artisan:

Herewith are drawings of an elbow square to round on which I would like to have some of the readers of your valuable journal help me out. It is to be made

of heavy iron, and I would like to have a correct pattern so that I can punch rivet holes in the flat before forming and riveting. I have seen a number of patterns published which are nearly correct, but not absolutely so. I would like to hear from some of the old heads on this. H. N. ROGERS.

North Hammond, Ind., 416 Harrison St., Jan. 4, 1909.

ANNUAL SALESMEN'S CONVENTION OF THE BERGER MFG. CO.

The annual salesmen's convention of The Berger Mfg. Co., Canton, O., was opened at Canton, on December 28, and concluded with a banquet at the Courtland Hotel on the evening of January 2. The first organized convention of the Berger sales forces was held three years ago. The convention of 1908 surpassed in attendance and general interest the one of the preceding year, and this one was the largest and most successful gathering of the three. This year, as never before, the coming together of the sales forces of The Berger Mfg. Co. from various parts of the concern's constantly widening field of effort, had been looked forward to with unusual interest and enthusiasm by the travelers and the home office. The renewing of pleasant fellowships, the forming of more intimate personal acquaintance with those whom, during the year, the company reach mainly through cold type or concise telegram, the opportunity for renewed interchange of helpful ideas, the refreshing or increasing of one's knowledge of the things which contribute to sales efficiency, the formulating of plans based on past experience, the perfecting of methods that tend to improve administration without involving unnecessary detail, and the enthusiasm and stimulus born of renewed confidence and determination—these things have their part in making the relations between The Berger Mfg. Co. and their employes more cordial and the work more effective.

The morning and afternoon of December 28, the opening day of the convention, was given over to a reception of the visiting sales forces of the company. In the evening the opening session was held, which was addressed by the general manager and the manager of sales. Business sessions were held during Tuesday and Wednesday, December 29 and 30. On Tuesday the party witnessed the ascension of the airship "Ohio," under the auspices of the Aero Club of Canton. Similar sessions were also held on Thursday, December 31, with a social session on the evening of that day, the guests of honor at this session having been the Berger "Veterans," who have been continuously in the employ of the company for 15 years or more. New Year's Day was partly given over to business sessions. On the morning of that day the party went in a body to visit the McKinley monument. R. C. Coombs, manager of the Chicago office, addressed the assemblage, paying a touching tribute to the memory of William McKinley. On the morning of January 2, the last day of the convention, a trip was taken through the extensive works of the company, in the afternoon unfinished business was disposed of, the banquet in the evening forming a fitting termination to one of the most successful events of the kind ever given in the country under the auspices of any industrial enterprise.

The banquet proved to be a thoroughly enjoyable event. The viands were of the most tempting character, and sufficient to tickle the palate of anyone possessed of the most Epicurean taste. F. A. Schwertner, treasurer of the company, performed the duties of toastmaster. The toasts and their respondents were as follows: "An Off Year," Ed. A. Langenbach, president and general manager of the company; "New Associations," F. H. Snyder, first vice-president; "Our Policy," R. H. Yancey, second vice-president; "Sand and Snags," Wm. Langenbach, general manager of branches; "The Personal Element," A. T. Enlow, manager of sales; "Sounding the Trumpet," W. W. Wallace, advertising manager. A number of informal talks were given and were very much enjoyed. The musical program was an elaborate one, the *piece de resistance* being the Berger Convention Song, "Berger Boys."

To Julius H. Schlafly, assistant superintendent of the company, belongs the credit of the longest term of service of any Berger employe. Mr. Schlafly entered the employ of the company on March 5, 1887, and has been continuously engaged with them ever since, covering a period of 21 years and 10 months of service. This constitutes him in years of service the "senior employe" of the company, and the only one excepting the general manager, who has been identified with the business for more than 20 years.

The souvenir booklet of the convention, which is gotten up in unusually attractive form, shows a view of the big plant of The Berger Mfg. Co., contains pictures of the officers, heads of various departments and the sales force, together with a history of the growth of the company, and a list of some of the leading Berger specialties.

The cut shows the officers and sales force of the Berger Mfg. Co. and a view of the big Berger plant. The numbers used in the cut correspond to those below.

OFFICERS.

1. Ed. A. Langenbach, Pres. and Gen'l Mgr.; 2. Fred H. Snyder, 1st Vice-Pres.; 3. R. H. Yancey, 2nd Vice-Pres. and Mgr. Ceiling Dept.; 4. Chas. A. Irwin, Sec'y and Gen'l Supt.; 5. F. A. Schwertner, Treasurer and Mgr. Lantern Dept.; 6. Chas. W. Krieg, Ass't Treas. and Auditor.

SALES ORGANIZATION.

7. A. T. Enlow, Manager of Sales; 8. Geo. J. Smith, Mgr. Roofing Dept.; 9. H. O. Wilson, Ass't Mgr. Ceiling Dept.; 10. H. G. Geltz, Mgr. Pump Dept.

FIREPROOFING DEPARTMENT.

11. Mgr. W. L. Caldwell, Metal Studs and Lath; 12. C. R. Jamison, Vault Lights, Ferro-Lithic and Multiplex; 13. H. M. Naugle, Metal Lumber; 14. Theo. Hiller, Mgr. Furniture Dept.; 15. H. L. McKenzie, Mgr. Jobbing and Tin Plate Depts.; 16. A. E. Hockwalt, Mgr. Credit Department; 17. W. W. Wallace, Mgr. Advertising Department.

BRANCH ORGANIZATION.

18. Wm. S. Langenbach, Manager of Branches; 19. E. H. Fickinger, and 20. Geo. D. Glass, Branch Managers, New York; 21. John G. Lorenz, and 22. Al. Langenbach, Branch Managers, Philadelphia; 23. Ray T. Langenbach, and 24. James T. Glover, Branch Managers, Boston; 25. C. M. Kennedy, and 26. N. V. Lux, Branch Managers, Minneapolis; 27. H. L. Sosenheimer, Branch Manager, St. Louis; 28. J. C. Barton, and 29. C. N. Thompson, Branch Managers, San Francisco; 30. J. H. Schlafly, Senior Employe and Factory Supt.

SALESMEN.

31. Geo. W. Andrew; 32. Emil E. Baechel; 33. Geo. E. Barnes; 34. R. A. Bartholomew; 35. Geo. A. Belding; 36. H. A. Berger; 37. Harry G. Bow; 38. K. M. Boyd; 39. Geo. H. Bresee; 40. T. D. Callahan; 41. C. C. Chase, Jr.; 42. R. C. Coombs; 43. J. H. Deering; 44. C. M. Easterly; 45. F. M. English; 46. B. A. Epperson; 47. J. A. Epps; 48. W. H. Fricke; 49. H. E. Garner;

Officers and Sales Force of the Berger Mfg. Co.

50. Frank Gerold; 51. P. H. Gramer; 52. L. N. Grove; 53. John D. Higgins; 54. C. E. Hillman; 55. Walter Jackson; 56. Arthur J. Judge, Jr.; 57. Geo. H. Kelly; 58. Arthur W. Kimball; 59. W. J. Leas; 60. F. C. Lomas; 61. John Maher; 62. J. G. Marxen; 63. L. D. Mercer; 64. A. H. Meyer; 65. H. O. Meyer; 66. W. J. Myers; 67. F. A. Northrop; 68. F. X. Quinlin; 69. C. A. Resch; 70. H. P. Resch; 71. Geo. F. Schafer; 72. H. A. Seeger; 73. J. A. Shaunty; 74. E. H. Shaw; 75. I. Jay Shults; 76. C. E. Stevens; 77. C. E. Stevenson; 78. C. M. Stucker; 79. J. A. Teckenbrock; 80. S. D. Valentine; 81. A. T. Voegtle; 82. J. A. Willis; 83. Will Wright; 84. A. E. Yarnall.

A GOOD ADVERTISING LETTER.

The following circular letter which Thomas Doudiken, 229 Mercer St., Trenton, N. J., is sending out to his customers, is one that by reason of its many excellent features can be depended upon to increase very materially Mr. Doudiken's sheet metal working business. Mr. Doudiken is secretary of the Master Sheet Metal Workers' Association of Trenton, N. J., and an advertising letter such as his might well be used by every master sheet metal worker in the country whose aim it is to do a job that will be a credit to him as a master sheet metal worker and as a member of a master sheet metal workers' association. But he should not forget to charge a price commensurate with the quality of the work.

"I desire to call your attention to our really old time, thoroughly executed sheet-metal work; work that stands the wear and tear the same as the old time work, the material being the same as we used along about the early eighties.

"We are using only these high grade plates and do not cater to cheap work, which has been the downfall of so many firms in our time; but are soliciting the patronage of the very highest grade of customers, who will be doubly repaid for the slight difference in cost by having work done that will be a source of satisfaction to themselves, by its being well done, as well as a lasting pleasure to us by the amount of new business that will naturally come to us through this class of work."

NOTES AND QUERIES.

SCRAP ZINC.

From Maher & Son, Preston, Iowa.

Where can we sell new scrap zinc?

Ans.—J. Lowenthal & Son, 15th and Sangamon Streets, Chicago.

ASBESTOS ROOFING.

From A. J. Ross, Cambridge, Illinois.

Who makes asbestos roofing?

Ans.—H. F. Watson Co., 2 Wells Street, Chicago; Keasbey & Mattison Co., Ambler, Pa.

STAIN AND VENEER FOR FURNITURE.

From E. J. McClanahan, Eugene, Oregon.

Where can I get stain and oak veneer for furniture?

Ans.—The Wm. Connors Paint Mfg. Co., Troy, New York.

SOLDER FOR ALUMINUM.

From J. E. Kerster, Wolcott, Ind.

Where can I get a preparation to solder aluminum?

Ans.—Solderene Co., Boston, Mass.; The Ruby Chemical Co., Chas. M. Hoover, sales manager, 142 W. Main St., Newark, Ohio.

METAL SOCKETS.

From Standard Aluminum Co., Two Rivers, Wisconsin.

Who makes metal sockets for dippers and sauce pans?

Ans.—Metal Specialties Mfg. Co., 18-24 Randolph street, Chicago; Turner Brass Works, Sycamore, Ill.

BRASS CURTAIN RINGS.

From A. J. Ross, Cambridge, Illinois.

Where can I get two-inch brass curtain rings?

Ans.—American Ring Co., 42 Madison Street, Chicago.

GALVANIZED IRON BARRELS.

From W. Libal, Lena, Wisconsin.

Kindly inform me where I can purchase galvanized iron barrels for shipping gasoline.

Ans.—American Steel Package Co., Defiance, Ohio.

ITEMS.

A petition in bankruptcy is reported to have been filed against Alfred Keve, dealer in enamel ware, etc., 72 First Ave., New York City. Liabilities are estimated at $4,000 and assets at $1,000.

Follansbee Bros. Co., Pittsburg, Pa., are sending out their monthly blotter for January on which they advise turning over a new leaf by adopting Scott's extra coated roofing tin as the leader for 1909. They take occasion to wish their customers a happy and prosperous New Year.

Following are the officers of the Master Sheet Metal Workers' Association of Columbus, Ohio, elected at the annual meeting recently held: President, Geo. Snyder, Jr.; vice-president, P. Kromer; secretary, Ora Benningnaus, corner Sixth and Main Streets; treasurer, A. P. Lamneck.

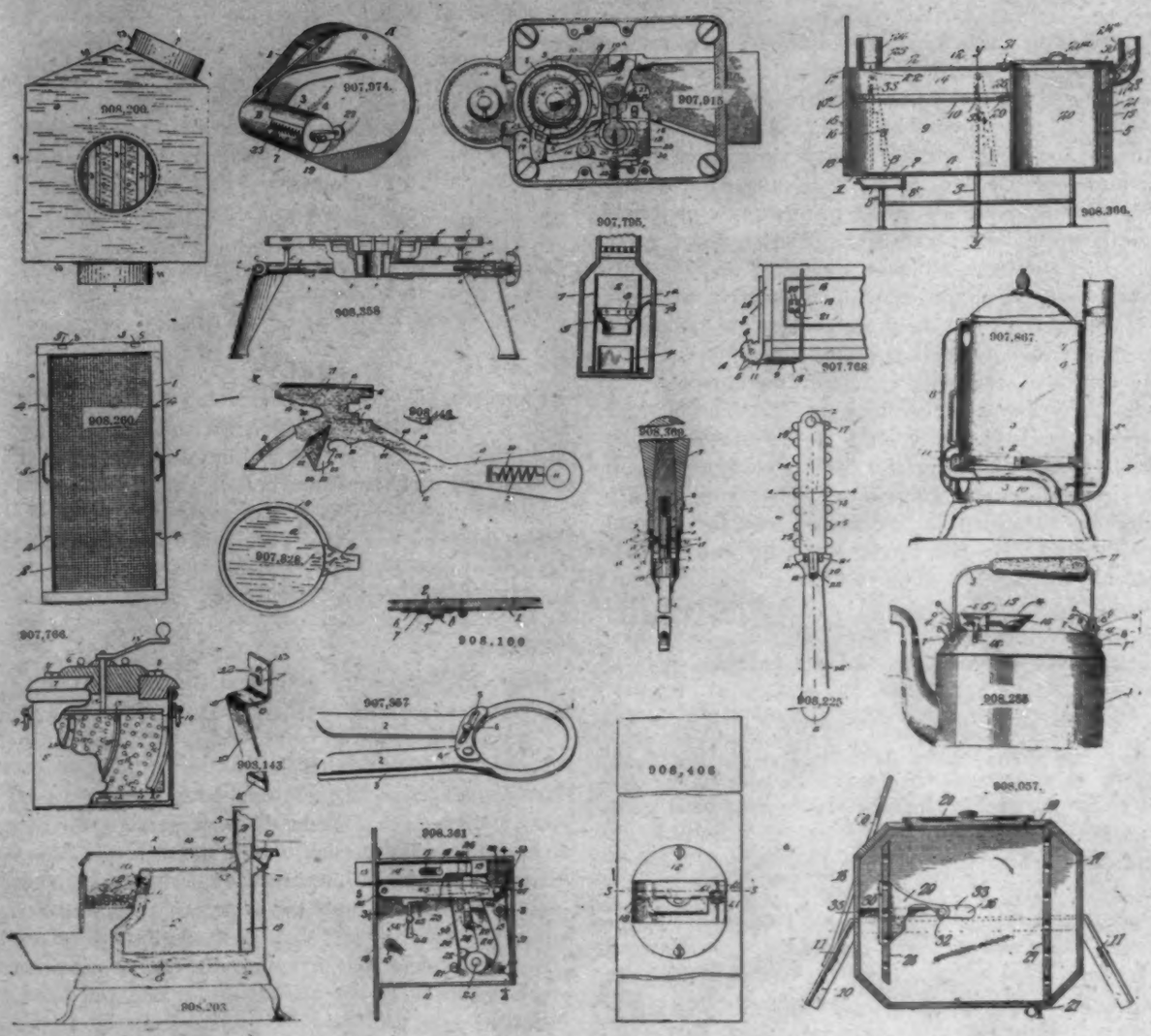
The American Sheet & Tin Plate Co., Frick Bldg., Pittsburg, Pa., announce that Jay I. Andrews has been appointed general manager of sales, and Walter C. Carroll and Fred M. Fuller, assistant general managers of sales at the Pittsburg headquarters of the company. These appointments became effective on January 1.

At the annual meeting of the Master Sheet Metal Workers' Association of Houston, Tex., held on December 18, the following officers were elected: President, G. S. Shannon; vice-president, Ernest Necco; treasurer, W. F. Fisher; secretary, E. E. Holtkamp, 817 Capitol Ave.; sergeant-at-arms, C. G. Eisemann; trustees, A. Berger, W. F. Fisher and W. T. Glass.

The Delphos Mfg. Co., Delphos, O., has installed a 100 horsepower, double-cylinder gas engine, in addition to two other engines which have all been assembled in one room. Dynamos will be installed and motors placed in every department to which the power will be distributed. Additional machinery has been ordered for delivery early in the Spring for the manufacture of pressed ceiling.

At a meeting of the Master Sheet Metal Workers' Association of San Antonio, Texas, held on December 28 the following officers were elected: President, G. W. Pillsbury; vice-president, John Hogan; treasurer, E. Dobrowolski; secretary, Jay Smith; sergeant-at-arms, A. W. Chatfield. Retiring Secretary H. L. Lathrop reports that the association is in a flourishing condition and that all members, some 28, have been greatly benefited by it. Mr. Lathrop says that there is a better feeling existing among all, and that there is no evidence of any spiteful price cutting. The association holds a banquet occasionally, which tends to cement the good-fellowship feeling, and to promote harmony among the members.

NEW PATENTS.



907,766—Washing Machine. Willard C. Foster, Kalamazoo, Mich. Filed May 9, 1907. Serial No. 372,819.

907,768—Hinge. William H. Fromhart, Golden, Colo. Filed Oct. 5, 1908. Serial No. 456,185.

907,795—Stove Attachment. Louisa S. Harvey, Knox, Ind. Filed Sept. 25, 1907. Serial No. 394,468.

907,828—Opening Device for Cans. Kristian Lye, Stavanger, Norway. Filed June 12, 1907. Serial No. 378,550.

907,857—Jar Wrench. Jorn Nelson, Bay City, Mich. Filed May 11, 1908. Serial No. 432,190.

907,867—Stove. Sylvester F. Palmer, Springfield, Mo. Filed Feb. 13, 1907. Serial No. 357,196.

907,915—Changeable Combination Lock. Warren H. Taylor, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed April 20, 1908. Serial No. 428,153.

907,974—Shaving Apparatus. Walker L. Crouch, Beaver Falls, Pa. Filed Feb. 28, 1908. Serial No. 418,317.

908,057—Washing Machine. Willie D. Whitney, Holley, N. Y. Filed Oct. 14, 1907. Serial No. 397,398.

908,100—Hinge. Alfred J. Howey, Harbor Beach, Mich. Filed May 7, 1908. Serial No. 431,470.

908,143—Window Lock. Conrad Rosine, Chicago, Ill. Filed June 4, 1908. Serial No. 436,698.

908,200—Smoke-pipe Radiator. George R. Brown, Elmira, N. Y. Filed June 26, 1908. Serial No. 440,492.

908,203—Stove. Laurence Carr, Los Angeles, Cal. Filed Oct. 26, 1907. Serial No. 399,333.

908,225—Safety Razor. Elwell V. Edwards, Camden, N. J. Filed May 4, 1908. Serial No. 430,709.

908,260—Window Screen. Theodore L. A. Hellwig, Brooklyn, N. Y. Filed Feb. 28, 1908. Serial No. 418,184.

908,285—Kettle. Robert B. Lewis, Greenford, Ohio. Filed Nov. 29, 1907. Serial No. 404,466.

908,346—Can Opener. Edward H. Smith, Ceredo, W. Va. Filed April 4, 1908. Serial No. 425,262.

908,358—Gas Stove. John Van Dyke, Kalamazoo, Mich. Filed May 11, 1906. Serial No. 316,413.

908,361—Combined Lock and Latch. Reynolds W. Vredenburgh and Charles B. Gilmore, Springfield, Ill. Filed Dec. 16, 1907. Serial No. 406,757.

908,366—Stove or Furnace. Clarence W. Wells, Reepsville, N. C. Filed Aug. 27, 1908. Serial No. 450,491.

908,369—Screw Driver. Edgar M. Winfrey, Wichita, Falls, Tex., and Thomas W. Lilins, Carlsbad, N. Mex. Filed June 24, 1907. Serial No. 380,507. Renewed Aug. 17, 1908. Serial No. 448,956.

908,406—Level. William J. Henderson, Memphis, Tenn. Filed Jan. 23, 1908. Serial No. 412,364.

Trade Report.

HARDWARE.

Many of the factories are now quite busy on orders and at the same time they are accumulating goods for the spring trade, so that they will be in a position to promptly execute any orders which may come to them with the increased activity in trade anticipated from this time on. Despite any tariff discussion regarding any possible reductions in the price of raw material, manufacturers feel justified in preparing for a good volume of business, although they may operate with some conservatism and caution. The stocks of hardware merchants throughout the country are said to be fairly complete and well assorted, but the recent holiday trade has somewhat cut into assortments which will call for some replenishing orders. The demand for wire nails is rather light at this season of the year, and the market for cut nails is unchanged, with requirements small. There is very little doing in barb wire just now, but it is expected that the demand from the southern part of the country will make itself felt in a few weeks. Manufacturers of plain wire are looking forward to a general revival of business. In small tools there are no particular changes to note, although there have been some minor revisions in prices.

The base price of wire nails at the mill is $1.95 per keg. The jobbing price is $2 at the mill for full car loads, $2.10 at the mill for less than car loads and $2.40 out of store. The base price of cut nails at the mill is $1.80 per keg. The jobbing price is $1.85 for full car loads at the mill, $1.95 for less than car loads at the mill and $2.25 out of store.

In the Chicago market wire nails are quoted as follows: Wire nails, jobbers' car load lots, $2.18; retailers' car load lots, $2.25; painted barb wire, jobbers' car load lots, $2.10; retailers' car load lots, $2.15, with 30 cents for galvanizing; plain wire to jobbers in car load lots, $1.98, and to retailers in car load lots, $2.05.

An increase of 10 per cent has been announced in the prices of picks and mattocks.

TIN PLATE.

The tin plate mills are gradually increasing operations and galvanizers are doing better. The demand is fairly active. Leading mills are now working largely on contracts for bright plate placed some time ago by the leading salmon packers and canning interests, most of this tonnage to be shipped out prior to April 1. A larger percentage of tin plate capacity is operating now than for some time. Several of the leading independent mills are operating full, while the American Sheet & Tin Plate Co. is operating 136 hot mills. The South Sharon works at South Sharon, Pa., containing 20 hot tin mills, is now in full operation. Prices are $3.89 for 100-pound coke plates, f. o. b. New York and $3.70 at Pittsburg mills, with the independents quoting $3.65.

Am. coke tins, I. C., from store, New York:	
Bessemer steel, 107 lbs., 14x20	$4.35@4.40
Bessemer steel, 100 lbs., 14x20	4.20@4.25
Bessemer steel, 95 lbs., 14x20	4.10@4.15
Bessemer steel, 90 lbs., 14x20	4.00@4.05
Am. charcoal terne, 8-lb. coating:	
Worcester grades, 14x20, 107 lbs	4.30@4.35
Worcester grades, 14x20, 100 lbs	4.15@4.20
Worcester grades, 20x28, 200 lbs	8.05@8.10
For prompt shipment, f. o. b. mill:	
Coke, tins, 14x20, I. C	3.85@3.90
Coke, tins, 14x20, 100 lbs	3.70@3.75
Coke, tins, 14x20, 95 lbs	3.65@3.70
Coke, tins, 14x20, 90 lbs	3.60@3.65
Charcoal, terne, 20x28, I. C	7.30@7.35
Charcoal, terne, 20x28, 200 lbs	7.00@7.05

Usual difference for odd sizes and weights.

SHEETS.

The sheet mills have not been doing well during the holidays. The large Vandergrift plant has been closed for inventory and repairs and it will be another week before the American Sheet & Tin Plate Co. will get its quota of 112 mills in operation.

The following are New York prices for 500-bundle lots and over, f. o. b. mill:

No. 30	$4.05
No. 29	3.80
No. 28	3.65
No. 27	3.35
Nos. 25 and 26	3.15
Nos. 22 and 24	2.95

COPPER.

While the large sales of copper reported last week seem to have been considerably exaggerated, there is no doubt that the market was in a fair way to show marked improvement until the slump in the stock market on January 4 took the kink out of speculators again. It was reported that 4,000,000 lbs. of electrolytic copper were sold to a wire-drawing concern last week, followed by another sale of 1,800,000 lbs. of electrolytic to go abroad. Other large producers were said to be in the market, but the amount of business done has been overestimated, for obvious reasons. The price paid on recent sales of electrolytic is said to have been 14½ cents and consumers are reported to be pretty well covered up to February 1 at or below that figure. The leading lake producers are still asking 14¾@15 cents, with very little first-class copper to be had at less than the outside figure. Casting brands are quotable at 14¼ cents. Attention is called to the fact that American consumers who were carrying stocks of fully 100,000,000 lbs. when the price was 25 cents a lb. are now carrying not more than one-quarter of the above amount for future delivery, with electrolytic selling at 14½ cents. The London market has shown unusual stability during the past week, the net changes being an advance of 3s 9d on spot, futures being quoted at the close the same as a week ago. The market for sheet copper is steady and unchanged, the base price being 19 cents. Yellow metal is firm, the quotations being 18 cents for dimensions, 16 cents for sheathing and sheathing nails, 17 cents for slating nails and 18 cents for keel and stem metal.

Extreme fluctuations for this year:

	Highest.	Lowest.
Lake copper, spot	15	12⅝
Electrolytic copper, spot	14⅞	12¼
Casting copper, spot	14¼	12⅛
London, spot	£64 17 6	£56 5 0
London, futures	65 15 0	56 17 6
London, best selected	68 10 0	60 0 0

SPELTER.

Spelter is quiet but firm, New York quoting 5.17½ @5.25 cents for spot and January delivery. The St. Louis market is firm at 5.05 cents. The Boston jobbing price is slightly higher at 5½@5⅝ cents.

SHEET ZINC.

Sheet zinc is unchanged at 7⅜ cents for cask lots and 8⅜ cents for less than cask lots.

ALUMINUM.

Trading in aluminum is quiet, with business of small proportions. Prices remain easy, with No. 1 ingots for remelting being offered at 25@27 cents per pound in ton lots, and No. 2 ingots at 23@25 cents in car lots for 90 per cent pure. Rods and wire are being held at 33 cents a pound in ton lots, and sheets at 35 cents a pound in ton lots.

PIG IRON.

The pig iron trade is improving very slowly, and indeed many members of the trade profess themselves unable to see where there has been any material increase recently in the volume of business being done. The passing of the holidays has not yet brought any perceptible addition to the amount of iron selling on new contracts, and it is not likely that any great amount of change will take place for some time yet. At the same time the situation is very firm, and it is claimed that there is absolutely no cutting of prices by any of the furnaces north or south. The furnaces are in a strong position, and iron men generally are showing no anxiety as to the future. The product of the furnaces for the first quarter is pretty well sold ahead, and a good volume of business is on the books for the second quarter. Very little has yet been done, however, for delivery after July 1, but in the iron trade there is a very confident feeling that the larger consumers will soon be obliged to come into the market again. The New England foundry interests are having a fair amount of business, but there is considerable disappointment expressed over the slow increase in the volume of orders. Deliveries are being made steadily, and there does not seem to be any disposition to hold back on the part of the foundry men. Stocks at the furnaces are moderate, and the bulk of the iron now being delivered is going promptly into consumption. Prices at the opening of the New Year are very firmly held, no changes being noted from recent quotations. In the Alabama field the position of pig iron is fully as firm as previously noted. The current quotation is $13@13.50 ton f. o. b. Birmingham, though the bulk of the current sales are being made at the outside figure. Virginia iron is firm at $18.75@18 ton, delivered on the wharf here, with 82½ cents added for all rail freight. Pennsylvania iron is also very firm, New England delivery being quoted at $18.50@18.75.

CHICAGO MARKET.

Lake Superior charcoal	$19.50
Northern foundry No. 1	18.00@18.50
Northern foundry No. 2	17.50@18.00
Northern foundry No. 3	17.00@17.50
Southern foundry No. 1	17.85@18.35
Southern foundry No. 2	17.35@17.85
Southern foundry No. 3	16.85@17.35
Southern foundry No. 4	16.35@16.85
Southern No. 1, soft	17.85@18.35
Southern No. 2, soft	17.35@17.85
Southern Gray forge	15.60@16.10
Southern mottled	15.35@15.60

PITTSBURG MARKET.

No. 1 foundry	$16.90@17.40
No. 2 foundry	16.25@16.90
Gray forge	15.40@15.90
Bessemer	17.40@17.90
Basic	16.65@16.90

BIRMINGHAM MARKET.

No. 1 foundry	$13.50@13.75
No. 2 foundry	13.00@13.25
No. 1 soft	13.50@13.75
No. 2 soft	13.00@13.25

Rogers, Brown & Co., Cincinnati, will say in their weekly report: "The after-holiday week saw some fair buying by larger consumers, but is particularly interesting on account of the promise held out for purchases in the near future. There are inquiries pending for a round tonnage and the market is firm. There is every evidence of increased activity and a larger melt, which it is expected will increase weekly from now on.

"Forge and steel-making irons are in strongest demand and the supply is limited. The smaller consumers generally throughout this territory are buying in small lots for prompt shipment and the iron is going directly into the melt.

"Coke is quiet and prices unchanged. Manufacturers and movement are proceeding well, with the demand slightly less than it has been. There are many consumers who have been buying from hand to mouth and it would seem that present prices should prove an inducement to contract. This has been the case and recently an excellent amount of contract business for the last half of the year was done at one or two Eastern points."

Matthew Addy & Co., Cincinnati, say in their weekly report: "It is too early in the new year to expect much doing in pig iron, and we are having just such an inquiry as might have been anticipated. There has been some demand for iron for pipe making, which is in short supply. Low grade iron everywhere is more or less a minus quantity, this being the season of the year when the furnaces do their best work. So there has been a demand for 4 foundry and gray forge that has swept the market clean of these grades and which would absorb three or four times the available supply. It is probable that with the fine weather conditions now prevailing as far as iron making is concerned the majority of the furnaces in the country are turning out about 85 per cent of 2 foundry or better.

"Pipe makers have bought generously. Then general foundries have been buying in small lots which are needed to fill out a mixture here and there.

"The prevailing sentiment in the trade is optimistic. As a rule consumers are melting more iron right along and have good prospects ahead. One of the large melters here told us that he began this week running full and with plenty of orders to keep him busy until the spring, and in the spring he thought from the present outlook he would have more business offered than he could handle. It may be that some users have been a little too hopeful in that they looked forward to a very speedy and immediate resumption of activity, but their expectations will be realized before the year is over. There is no doubt but that this year little by little will regain the ground which the iron trade lost in the great disaster of 1907."

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 40
IX	14x20	7 45
IXX	14x20	8 60
IXXX	14x20	9 85
IXXXX	14x20	11 60
IC	20x28	13 70
IX	20x28	15 70
IXX	20x28	18 15
IXXX	20x28	20 55
IXXXX	20x28	22 95

COKE PLATES.

Cokes, 180 lbs.	IC	20x28	$ 8 5
Cokes, 200 lbs.	IC	20x28	9 00
Cokes, 216 lbs.	IC	20x28	9 50
Cokes, 270 lbs.	IX	20x28	11 25

PIG IRON.

North'n Fdy., No. 1	$18 00@$18 50
North'n Fdy., No. 2	17 50@ 18 00
North'n Fdy., No. 3	17 00@ 17 50
Southern Fdy., No. 1	17 85@ 18 35
Southern Fdy., No. 2	17 35@ 17 85
Southern Fdy., No. 3	16 35@ 16 85
Southern Fdy., No. 4	16 35@ 16 85
Southern No. 1 Soft	17 85@ 18 35
Southern No. 2 Soft	17 35@ 17 85
Southern Gray Forge	15 00@ 16 10
Southern Mottled	15 35@ 15 60
Lake Sup. Charcoal	20 00@ 20 50
Southern Silveries, 4% Silicon	17 85@ 18 35
Southern Silveries, 5% Silicon	18 35@ 18 85
Southern Silveries, 6% Silicon	18 85@ 19 35
Jackson Co. Silveries, 6 percent	19 90
Jackson Co. Silveries, 8 percent	20 40@ 20 90
Jackson Co. Silveries, 10 per cent	21 90
Malleable Bessemer	17 00@ 17 50
Standard Bessemer	17 65@ 18 15
Alabama Basic	16 85@ 17 35

BLACK STEEL SHEETS.

No. 12 per 100 lbs.	$2 20@$2 30
No. 14 per 100 lbs.	2 25@ 2 35
No. 16 per 100 lbs.	2 35@ 2 45
Nos. 18-20 per 100 lbs.	2 60@ 2 65
Nos. 22-24 per 100 lbs.	2 65@ 2 70
No. 26 per 100 lbs.	2 70@ 2 75
No 27 per 100 lbs.	2 75@ 2 80
No 28 per 100 lbs.	2 85@ 2 95

GALVANIZED

No. 10 per 100 lbs.	$3 05@$3 10
Nos. 12-14 per 100 lbs.	3 05@ 3 10
No. 16 per 100 lbs.	3 05@ 3 10
Nos. 18-20 per 100 lbs.	3 15@ 3 25
Nos. 22-24 per 100 lbs.	3 30@ 3 35
No. 26 per 100 lbs.	3 50@ 3 55
No. 27 per 100 lbs.	3 70@ 3 75
No. 28 per 100 lbs.	3 90@ 4 00

POLISHED SHEET STEEL.

No. 24 per 100 lbs	$4 90
No. 26 per 100 lbs.	5 00
No. 27 per 100 lbs.	5 10
No. 28 per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth, No. 20	$3 05
" " No. 22-24	3 10
" " No. 25-26	3 15
" " No. 27	3 20
" " No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, "A" $10.20, "B" $9 20

PATENT PLANISHED SHEET STEEL.

Mckey Planished Sheet Steel 9½c

SOLDER.

XXX Guaranteed ½ & ½ per lb.	18 c
Commercial ½ & ½ per lb.	17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks case, per cwt.	$7 15
300 lb. Casks per cwt.	7 15
Sheets per cwt.	7 15

COPPER.

Copper sheet, 100 lbs. over, base 17c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	33 c

LEAD.

American Pig	4.37½@4.40
Bar	4.37½@4.40
National (White) brands (in less than 100 lb lots), per lb	8½c
Sheet.	
Full coils per 100 lbs.	$9 00
Cut coils per 100 lbs.	9 50

HARDWARE.

ADZES.

Carpenters'.	
Plumbs	40%
Coopers'.	
Barton's	20%
White's	15%
Railroad	
Plumbs	40%
Ship.	
Plumbs	40%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.

F. L Waterproof, 1-10s	40c
G D	35c
Musket	60c

Shells; Loaded—

Loaded with Black Powder	40%
Loaded with Smokeless Powder, medium grade	40 & 5%
Loaded with Smokeless Powder, high grade	40 & 10 & 10%

Union Metallic Cartridge Co.:

New Club, Black Powders	40%
Nitro Club, Smokeless Powders	40 & 5%
Arrow, Smokeless Powders	40 & 10 & 10%

Winchester:

Smokeless Repeater Grade	40 & 5%
Smokeless Leader Grade	40&10&10%
Black Powder	40%

Gun Wads—per 1,000.

Winchester Gun Wads	15%

Powder.	Each.
DuPont's Sporting, kegs	$ 50
" " ½ kegs	2 50
" " ¼ kegs	1 40
Dupont's Sm'k'less. 50-lb. drum	22 45
" " 25-lb. kegs	11 30
" " 12½-lb. kegs	5 80
" " 6¼-lb. kegs	2 97
" 1-lb. cans	15

Shot.

Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 95
Drop shot, B and larger sizes, 25-lb. bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot, 25-lb. bags "	2 30

ANCHORS

Expansion Screw Anchors 10%

ANVILS

Trenton, 70 to 80 lbs.	9½c per lb
Trenton, 81 to 150 lbs.	9½c per lb

ASBESTOS.

Board and Paper 33⅓%

AUGURS.

Boring Machine	70%
Irwin's	40&10%
Carpenter's Nut	70%
Hollow.	
Bonney's—list $30.00	75&5%
Stearns, No. 3	36 00
Post Hole.	
Digwell, 8-inch per doz.	12 50
Iwan's Post Hole and Well	40%
Vaughan's, 4 to 9-in., per doz.	6 25
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or wi'out screw	40-12½%
Snell's " " "	40-5%

AWLS.

Brad.	
No. 3 Handled per doz.	$0 40
No. 1050 Handled "	80
Shouldered, assorted, 1 to 4, per gro.	$1 20
Patent asst'd, 1 to 4 "	85
Harness.	
Common "	95
Patent "	90
Peg.	
Shouldered "	1 20
Patent "	60
Scratch.	
No 1 handled "	4 50
No. 15, socket handled per doz.	1 25
No. 7 Stanley	1 80
Sewing.	
Common per gro.	90
Patent "	90

AXES.

Boy's Handled.	
Lippincott, 3 lb. per doz.	$6 00
Falls City "	6 00
Broad.	
Plumbs, West. Pat	33⅓%
" Can. Pat	40%
" Firemen's (handled) per doz	$1 75
Plumbs, Miners' (handled) "	6 75
Single Bitted (handled)	
Gladiator . 3 to 4 lbs . per doz	$11 00
Flint Edge " " "	9 25
Standard " " "	9 25
Elec Chopper, Forest Clipper	10 50
Perfect Premier " "	10 00
Crown " "	7 00
Single Bitted (without handles)	
Gladiator 3 to 4 lbs. per doz.	$5 50
Flint Edge " "	7 00
Standard " "	7 00
Electric Chopper" "	6 25
Perfect " "	7 75
Crown " "	6 25
Double Bitted (without handles).	
Gladiator 3 to 4 lbs. per doz.	11 50
Flint Edge " "	9 75
Perfect " "	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.

4½ to 4½ lbs advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Fray's	40%
Pelouse	30%

BARS, CROW.

Pinch or Wedge Point per cwt. $3 75

BASKETS.

Clothes.	
Small Willow per doz.	$7 00
Medium " "	8 75
Large " "	10 50
Galvanized Iron.	½ bu. 1 bu. 1½ bu.
Per doz	$4 75 [illegible] [illegible]

BEATERS.

	Per doz.
Carpet.	
No. 10 Coppered Spring Wire	$0 90
No. 12 Spring Wire	1 10
No. 10 Preston	1 10
Egg.	Per doz.
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	85
No. 150 " " hotel	1 40
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths'	65%
Hand.	
8-inch per doz.	$5 50
10-inch "	10 50
Moulders'.	
12-inch "	12 50

BELLS.

Call.	
3-inch Nickeled Rotary Bell, Bronzed base per doz.	$5 00
Cow.	
High Grade	60%
Kentucky	55&10%
Door.	Per doz.
New Departure Automatic	$6 00
Rotary.	
3 -in. Old Copper Bell	4 00
3 -in. Old Copper Bell, fancy	6 00
3 -in. Nickeled Steel Bell	4 50
3½-in. Nickeled Steel Bell	5 00
Hand.	
Hand Bells, polished	50&5%
White Metal	40%
Nickel Plated	30%
Swiss	40&33⅓%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50%

Farm, lbs	40	50	75	100
Each	$1.25	1.60	2.85	2.85

BEVELS, TEE

Stanley's, rosewood handle, new list	25%
Stanley's iron handle	25%

BINDING, OILCLOTH.

Zinc	80%
Brass	70&10%
Brass plated	75&5%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Triumph	50&5%
Ford's Ship	40&10%
Irwin	50%
Russell Jenning's	25&10%
Clark's Expansive	60%
Steer's " Small list, $22.00	25%
" " Large " $26.00	25%
Irwin Car	45%
Ford's Ship Auger pattern Car	40&10%
Center	40&10%
Countersink.	
No. 18 Wheeler's per doz.	$1 25
No. 20 " "	1 75
American Snail head "	75
" Rose " "	90
" Flat "	75
Mayhew's Flat "	1 25
" Snail "	1 25
Dowell	
New Jennings	40&10%
Gimlet.	
Standard Double Cut	60%
German Pattern per doz.	$0 60
German "	65
Gouge "	80
Spoon "	80
Countersink "	1 00
Reamer.	
Jenning's Square "	2 50
Standard Square "	75
German Octagon "	75
Screw Driver.	
No. 7 Common "	[illegible]
No. 1 Triumph "	1 25

BLACKING, STOVE. (See Polish).

BLADES, SAW.

Butchers'.
Standard, ¾ & 1½-in. 40%
Clock Spring 40%
Star 15%
Coil ..... each, $1 50

Hack.
Disston's ..... 25&5%
Flexible ..... 33⅓&5%
Star ..... 20&5%

Wood.
Jackson's ..... per doz. $2 25
Disston's—No. 6, 16, 26 & 045 .. 4 25
Triumph 3 50
Forest Clipper 3 00

BLOCKS.

Snatch.
Wooden ..... 60&10%
Steel 50%

Tackle.
Iron Strapped 70%
Com. Steel 60%

BOARDS. (New List)

Slow ..... 50&10%

Wash.
Globe, single ..... per doz. $2 50
Globe, double ..... " 3 35
Peace Maker ..... " 3 00
Crystal Glass ..... " 4 00
Brass King ..... " 4 00
Nickel Plate ..... " 4 15

BOBS, PLUMB.

Carpenters'.
No. 2, iron ..... per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 1 80
No. 3, lead ..... " 2 90
No. 4, " ..... " 3 40
No. 113, brass plated .. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ½x6 and sizes smaller and shorter ..... 70&10%
Carriage, sizes larger and longer than ½x6 ..... 60&5%
Machine, ½x4 add sizes smaller and shorter ..... 70&10%
Machine, sizes larger and longer than ½x4 ..... 60&5%
Elevator ..... 50-10&5%
Plow ..... 60&10%
Stove ..... 80&10%
Tire 75%
Wagon Box Strap 70%

Mortis, Door.
Gem, iron 60%
Gem, bronze plated 20%

Barrel.
Cast 60%
Wrought .....
Wrought, bronzed 50%

Flush.
Wrought ..... 50&10%

Spring.
Wrought .....
Wrought, heavy .....

Square.
Cast ..... 50&10%
Wrought .....

BORERS.

Angular.
Miller's Falls ..... per doz. $13 00

Bung. Doz.
Enterprise Mfg. Co 's No 1 ... $14 00
" " No 2 .. 18 50

BOXES

Mail, No. 1 2 10
Per doz $3.50 5.00 17.50

Miter.
New Langdon ..... 15&5%
Stanley's 30%
Seavey's ..... each, $1 50

BRACES.

Barber's ..... 50&10&10@30&10&15%
Fray's Genuine Spofford's 60%
" Nos. 66 to 146 ..... 50%
" No. 0106 ..... $3 50
" No. 08 ..... 2 75
" No. 010 ..... 2 85

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 00

Shelf.
Cast Iron, bronzed ..... 80-10&5%
Clover Wrought Steel ..... 70&10%
Clover Folding 70%

BROILERS.

Wire 70%
No. Cwron Self-basting, 30 dos .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff ..... per gro. $4 75
Cooper ..... " 4 75
Champion ..... " 7 50
Victor ..... " 9 25
Star ..... " 5 00
IXL ..... " 6 75

Well.
Galv'd Qts 10 12 14
Per doz $2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding ..... per doz. $2 10

BURRS, RIVETING.

Copper Burrs only 30%
Tinners' Iron Burrs only ..... 65&5%

BUTTS.

Cast Iron ..... 70&5%
Wrought Brass (New List) 40%
Wrought Steel, Bright.
Wrought Steel, Japanned.
Nos. 731 and " ..... 70&10%

CALIPERS.

Double ..... 65&5%
Inside and Outside ..... 65&5%
Wing 70%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M $3 75

Toe.
Shoenberger ..... per lb 5 c
Bessemer ..... " 4½c
American ..... " 7 c
Swedes ..... " 8½c

CANS.

Milk.
Holstein.
Nos 300 301 302
Gals 5 8 10
Per doz $17.50 $22.00 $25.00

Gem Pattern.
Nos 400 401 402
Gals 5 8 10
Per doz $17.50 $21.50 $23.50

Omega Pattern.
Nos ..... E 2 E 3
Gals 8 10
Per doz $23.50 $26.50

Jersey Pattern.
Nos 80 81
Gals 8 10
Price $23.00 $27.00

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular ..... each, $3 85
Diamond, Sling ..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf ..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing ..... 50&10%
Bed ..... 60&5%
Common Plate.
Brass Wheel ..... 60&10%
Iron and porcelain wheels, new list ..... 60&5%
Philadelphia Plate, new list 70%
Martin's 60%
Payson's ..... 75&10%

CATCHERS, GRASS.

Carroll's, No. C ..... per doz. $4 25
Wildermuth's,.
Nos 1 2 3
Per doz $5.60 $5.75 $6.25
Nos 4 5 6
Per doz $6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack ..... dos. pairs, $5 75
With Covert Snaps ..... " 5 00
With Slide ..... " 3 25
Without Slide ..... " 2 85

Bright Ox Chains.
⅜-in. $7.25; ½-in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch ..... 5/16 ⅜ 7/16 ½
Per 100 lbs. $10.80 $8.00 $7.00 $6.20
Inch ..... 9/16 ⅝ ¾ ⅞
Per 100 lbs. $6.00 $5.90 $5.75 $5.65
Inch ..... ⅞ 1 1¼
Per 100 lbs $5.55 $5.55 $5.65

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.

Cow Tie Chains.
American, 2 toggle ..... 50&5%
" toggle and snap ... 50&5%
" open and closed ring ..... 50&5%

Halter Chains.
American, new list 33⅓%
German 60%
Niagara, new list 40%
Brown's, " 40%

Picture Chains.
Light Brass, 3 ft ..... per doz. $0 65
Heavy Brass, 3 ft .... " 1 00

Pump Chain
Galvanized, per 100 lbs $5 50

Safety Chain.
Brass 60%

Special Steel Loading Chain.
Inch ..... ½ 9/16 5/8
Per 100 lbs $16.00 $13.50 $12.50

Stretcher Chains.
5/16-in. $5.50; ½-in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's ..... 70&5%

Trace Chains.
Western Standard.
6½— 6-2 ..... per pair 30c
6½— 8-2 ..... " 34c
6½— 8-3 ..... " 32c
6½—10-2 ..... " 38c
7 — 8-2 ..... " 38c
7 —10-2 ..... " 42c
7 —10-1 ..... " 48c
7 —10-0 ..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.

Vagon Stay Chains.
Inch ..... ½ 7/16 ⅝
Per 100 lbs $6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue ..... per gro. 75c
Red ..... " 65c
White ..... " 55c
Common White School Crayon ..... " 8c

CHARCOAL.

In bags ..... per bag 90c

CHECKS, DOOR.

Blount 33⅓%
Sargent's 33⅓%

CHIMNEY TOPS.

Iwan's Volcano 50%

CHISELS.

Box.
Inches 10 12 14
Round per doz $2.10 $2.25 $2.75
Flat " ... 2.85 3.60 4.20

Cold.
Good quality, ¾ in. and larger ..... per lb. .13c
Smaller size per doz .....

Socket, Framing and Firmer.
Clover ..... 75&10%

Tanged, Firmer.
With handles ..... 30&5%

Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers ..... per doz. $6 25
Yankee, for Yankee Screw Drivers 5 00

CHURNS.

Anti-Bent Wood,
Gal 5 7 10
Each $3.90 $4.60 $4.85
Belle, Barrel ..... 65&7½%
Common Dash, Gal. 4 5 6
Per doz $7.75 $8.50 $10.50
Union, Gal 5 7 10
Each $3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's 30%

Carpenters'.
Steel Bar 25%

Hose.
Sherman's, brass, ¾-in., per doz .. 42c
Double brass, ¾-in., " 90c

Saw Filers.
Disston's list, $30.00 ..... 30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $7.50.

CLAWS, TACK.

Cast, wood hdle ..... per doz. 45@60c
Forged steel, wood hdle " $0.80
Solid steel ..... " 1 00
Giant ..... " 50

CLEANERS.

Drain.
Iwan's Adjustable 55%
Iwan's Stationary ..... 40&5%

Pot.
Wire ..... per doz. $0 55

Side-Walk.
Steel ..... per doz. $3 25
XLCR ..... 65&5%

CLEAVERS

Family.
Griffin, Inch 6 7 8
Per doz $5.50 $5.75 $6.25
Royal ..... per doz. 2 25

Butchers.
Plumba 25%

CLEVISES

Malleable ..... 5½c lb.

CLIPPERS.

Bolt ..... $1.90@4.75

CLIPS.

Axle ..... 65&5%

Damper.
Standard ..... per doz. 65c
Troy ..... " 38c

Hame ..... " 17

CLOTH

Emery.
Star 50%
B. & A 50%

Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll ... 2 75
4 and 5 ..... " .. 3 00
6 ..... " .. 3 25
7 and 8 ..... " .. 3 75

Screen Wire.
12 mesh, painted, per 100 sq. ft. . 1 35

COCKS AND FAUCETS.

Compression Plain Bibbs ... 60, 10&5%
Lever Bibb Cocks ..... 60, 10&5%
Compression Hose Bibbs .. 50—10&5%
Telegraph Faucets (new list) .. 50—5%
Stacking Cocks (new list) ... 60, 10&5%
Compression Lock C'ks (new list) . 70%
Andrew's Brass Faucets 70%
Angle Plug Faucets, per doz $0 85
Milk Can Faucets, per doz .. $2.60-4.20
Petroleum Faucets ..... 75&5%

COLLARS, STOVE PIPE.

Inches 5 6 7
Plain Tin .. per gro. $1.90 $2.40 $3.50
Japanned Tin " 3.00 3.00 4.25
Lacquered Brass " 3.00 5.50 4.25

COMBS, CURRY.

Nos ... 000 11 15 23 80 108
Per doz .. $.37 .60 1.90 .90 1.15 .80
Nos ... 299 320 300 522 620 1400
Per doz. $1.05 .85 1.35 1.20 .75 1.40

COMPASSES.

Carpenters' ..... 60—10—10%
Pencil—Faber's ..... per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb ..... per lb 30c
1½ lb ..... 31c 2 lb ... " 29c
3 lb and larger ..... " 26c

CORD.

Picture
White Wire (new list) ..... 85&10%

Sash.
Monarch Braided Flax ... per lb
Silver Lake, white, 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone ..... 8-32 in. " 29c

CORKSCREWS.

Humason & Beckley 33⅓%
Walker's 33⅓%
Williamson's Regular ..... 40&10%
Williamson's Forged Worm 50%

COTTERS, SPRING.

All sizes—new list ..... 90&30%

COUPLINGS, HOSE.

Brass ..... per doz. $
Brass Plated ..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine ..... per doz. $22 75

CRAYONS—See Chalk.

CROW BARS.

Inch or Wedge Point.....per lb 3½c

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%

Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½%

Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4.00

Slaw and Crout.
3-knife Crout.....per doz. $9 75
1-knife Slaw..... " 1 65
2-knife Slaw..... " 2 25

Washer..... " 7 75

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American.....50%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.

Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in. 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12..... " 2 10

Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25

Reciprocating.
Goodell's.....per doz. 16 50

Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet.....50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Terms, 2% for cash. Factory shipments generally delivered.

See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz..$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65

Corrugated Conductor.
Discount.....75&10%

Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40

Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.65 $0.95
Planished, " .. 1.40 1.70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size.....5-lb. pkgs. ½ kegs, kegs.
No 60 to 150, per lb.. 6c 4c 4c
Flour..... " ... 5c 3c 3c

ENAMEL, IRON.

A-B Iron Enamel, 3 doz. case, ...per gro., 15 00
Peerless..... 1 25

EXTRACTORS, PIG.

See Forceps, Pig

FILES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 75
Whisson's Imp..... " 5 25

FORKS.

Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 00
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Leader.
3-tine.....60&5%
4 " .....60&5%

Manure.
4-tine.....60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20

Jack Frost.
Qts..... 2 3 4 6 8 10
Price .$1.60 1.90 2.20 2.80 3.60 4.55

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single.....90&20%
Double.....90&25%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12 c
A White..... " 15 c
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....90%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's..... " 9 50
Hub Lightning..... " 5 25
Paragon..... " 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 7 8 9
Per doz.....$8.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... " 1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 75
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .90 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs. .....30&5%
5 lbs. and over.....30&10%
Masons'.
Single and Double Face.....30&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 28
Peck's Adjustable.... " 2 10
Ives' Adjustable.....per set, 1 35
Axe.....60%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 33c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 24
Coal Pick.....50&10%
Drifting Pick.....50&10%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....30%

HANGERS.

Barn Door.
Nansen.....60&10%
Matchless.....70&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse.....60%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eaves Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crown.....60-10&5%
Cast Claw.....per doz. $1 10@1 25
Cast Shingling.... " $0 85@1 10
Germantown.....30%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wensleman's No. 1.....per doz. $9 00
Wensleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 00
Gate.
Clark's..... 1 2 3
Hgs & Ltch.. doz. $2.50 2.90 4.00
Hinges only... " 1.90 2.20
Latches only . " .70 .75
Knuckle.....per doz prs. $6 00
Leed's..... " sets 6 75
Superior..... " prs. 9 00
Spring.
American.....20%
Chicago.....35&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....30%
New Idea.....per gro. $3 00
Oxford.....30%
Wrought Iron
New Lists .....
McKinney
Light Strap Hinges.....60%
Heavy Strap Hinges.....65%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....40%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 75
14 to 20 in..... " " 3 65
22 to 36 in..... " " 3 60
Screw Hook and Eye.
½ in.....per 100 lbs. $6 75
⅝ in..... " " 7 75
¾ in..... " " 9 75

HOES.

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....50&10%
Iron.....65&10%
Awning.....per gro. $1 00
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Humason & Beckley's..per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle. per doz. $7 00
Chain.
Inch.... ¼&5/16 ⅜ 7/16 ½
Per 100...$7.60-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned.....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron .... per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable.....25%
Wrought.....20%
Corn.
Common, unpolished, per doz. $1 50
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50%@50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring.....per lb. 5½c

HOOPS, TUB.

Elastic ... per case of 2 doz.... $1 50

HOSE, GARDEN.

				Coupled, per ft.
Heron, 3 ply-¾" guar. press			55 lbs.	7½c
Crane.. "	"	"	75 "	8½c
Falcon "	"	"	95 "	9½c
Eagle "	"	"	120 "	10½c
Condor "	"	"	150 "	11½c
High Test "	"	"	200 "	12½c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press.			400 lbs.	11½
Special "	"	"	300 "	9½c
Leader "	"	"	100 "	7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 59 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40

IRON.

See Metals.—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial..... " 1 00
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 4 50
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's.
No. 50 J, Enterprise, per set 93
No. 55 J, " " 90
No. 50 T, " " 1 00
No. 55 T, " " 96
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest .. " 6 25
Sutton.....each.... 2 00

JACKS.

Locomotive.....70%
Wagon.
Oliver,
Nos..... 0 00
Each.....$0.60 $0.80
Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.00

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 4 25
Heath's..... " 3 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 40
Common, Double..... " 50
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander's..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2½-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Dietz & Hanes' . . ..net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality .....per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 11
60-ft. Cotton..... " 1 12
60-ft. Braided Cotton. " 25

LINING, STOVE.

In Bricks .....per crate, 42c

MACHINES.

		Without Augers	With Augers
Boring.			
Angular.....per doz.		3 00	4 40
Upright..... "		2 00	4 00
Leather Riveting.			
Chicago, Pomeroy....per doz.			$9 00
Excelsior.....	"		2 00
Handy.....	"		2 00
Little Giant.....	"		3 00
Pony, Pomeroy.....	"		7 20
Vashing.			
Winner.....per doz.			54 00
Keystone.....	"		54 00
U. S. Steel.....	"		60 00
Advance, f.o.b.Chicago	"		24 50

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS.

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs.....	10	13	16	18
Per doz....	$4.00	4.50	5.25	5.60
Wood face, lbs.....	10	12	14	
Per doz.....	$5.00	5.50	6.00	
Wood Choppers'.				
Lake Super'r & Oregon Pat. 75&10%				

MEASURES.

	½ pk.	1 pk.	bu
Galvanized, per doz.	$2.25	3.00	3.85
Japanned.. "	1.75	2.45	3.15

MICA.

First Quality.....40&5%
Second Quality.....50&5%

MILLS, COFFEE.

Enterprise.....25%
Parker.....60&5%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1¼ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Gladiator—B. B.
Inches..... 16 18 20
Each..... 6.50 7.25 8.00
King Universal—B. B.
Each..... 5.25 5.75 6.00
Inches..... 14 16 18
Big Giant..... 3.50 3.90 4.25
Little Giant..... 2.50 2.65 2.75

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 00
Wire.
Small Lots..... $2 20
Carload Lots..... 2 15
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf.....per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving .80,10&2½%
Galvanized after weaving.....50&7½%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 00
Magic..... " 3 00
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.
In ¼ 5/16 ⅜ 7/16 ½ ⅝
lb 9½c 8c 6½c 5½c 5c 4½c
Square Tapped.
In. ¼ 5/16 ⅜ 7/16 ½ ⅝
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 50
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.60 4.15
Round.... " 2.10 2.25 2.75
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 00
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....60, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin..... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 25
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn .. 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, [illegible]
No. 30, Red Rosin.... [illegible]
Sand and Emery.
Star .....low list, 50%
B. & A.....50%
Wrapping.
Drab Paper.....per lb. [illegible]
Bag..... [illegible]

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 9 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel.

Inches	6	8	10	12
Per doz.	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 82
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.

	Gal. Steel	Charcoal
L. C. L. to Dealers:—		
Eastern	70&10%	50&10&2½%
Pittsburgh	75&10&5%	60%
Central	75&10%	60%
Northwestern	75&7½%	60%
Western	70&12½%	50&12½%
Tennessee	70&10%	50&12½%
Southern	70%	50&12½%
Southwestern	70%	50&5%

Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Pull coils .....per lb. 7½c
Cut coils..... " 7½c
Stove

Acme—Inches	5	6	7
Smooth, per jt.	8½c	9½c	10½c
Planished, "	32 c	33 c	43 c
Peerless—Smooth,	7½c	8 c	9½c
Polished	14½c	15½c	18 c
Planished	28 c	31 c	35½c
Made-up—Inches	5	6	7
Smooth	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c

Yale Patent Lock Pipe—Stove.

	5"	6"	7"	7" to 6"
	Cents			
Battle Axe Blue	7	7½	9½	10½
Can't Slip "	7½	8½	10	11
Peerless "	7½	8½	10	11
Duplex "	10	11	13	14
Yale, Rus. Fin	15	16	17	18
Duplex Planished	29	31	37	38
Galvano, Gal	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Grating made-up pipe extra.

Wrought Iron Gas Pipe.
⅛@¼-in., black.....discount, 60%
⅜@½-in., black..... " 60,10&5%
¾-in. to 6-in, black... " 70%
7-in. to 12-in., black... " 62½%
⅛@¼-in., galvanized.... " 42%
⅜@½-in., galvanized.... " 50%
¾-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench .....25&5%

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Giant, Button's—80% off list.
Cutting
Bernard's.....30%
Lodi.....50%
Upper End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co....60%
Fencing.
Black Bull.....per doz. $8 25
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....30%

Gas.—Inches	7	8	10	12
Per doz.	$3.00	3.50	4.50	5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common .....60&10&10%
Cook's.....40%
Davis' Iron 25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
A-B Oil Metal Polish, 4-oz. bottles, 3 doz. case, per gr. $9 00
1-gal. can..... 90
White Silk, half pints, per doz, $2 00
White Silk, 6-oz. cans, per doz. 1 00
Shoe.
M. C. D.....per doz.....36c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro..... 5 00
Stove.
A-B Polishes.
Liquid Stove Polish.
3 doz. in case.....$2 25
5 " " .....gr., 9 00
Fireproof Stove Polish, 3 and 6 doz. in case.....gr., 12 00
Liquid Waterproof Stove Polish, 10-oz. cans, per gro., 12 00
Oil Paste Polish.
6-oz. cans, 3 doz. case..... 2 25
1-lb. " 3 " " 3 75
5-lb. " per can..... 50
Dry Powdered Stove Polish.
5-lb. box..... 75
100-lb. bbls.....per lb. 12
Powder Polish. 3 doz. 6 do. 12 doz. $2.25 $4.50 $9 00
Water Paste Stove Polish, ½-lb. boxes, 3 doz. case..per gro., 12 00
Black Eagle, 1-lb. cans, pr gr. $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans.... " 1 05
Liquid, ½-pt. cans... " 1 05
Liquid, 6-oz. cans... " 75
Black Jack, ½-lb. cans. " 9 25
Dixon's Carb. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 35
½-qt..... " 3 75

POTS, FIRE.

Clayton & Lambert's, each, $4 75@6 25
Gate City.....each, 6 25
Gem.....each, $6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 50%

PULLERS.

Cork.
Daisy.....each, $3 10
Phœnix ..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant ..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in..... " 1 75
Wood Wheel, 6-in. pass knot, ...per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 16
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.

Nos.	1	2	3	4
Each	$1.00	1.15	1.30	1.70

Spray.
Blizzard.....per doz. $14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 2
Machine.....per lb 19
Saddlers'.
Common .....per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 3

RAIL.

Barn Door.
Matchless, 1-in..... 3
Matchless, 1½-in..... 3
Storm King..... 4
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 2
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 0
Lawn—Wood.
XXX.....per doz. $3 0
Automatic..... " 5 2
Lawn Queen..... " 2 7
Jumbo, 36 teeth..... " 5 2

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

(All Sizes)

Japanned, Bronzed and Plated...70%
White Porcelain Enameled...50&10%
Solid Brass and Bronze Metal....40%
Single Valve (Baseboard and Sidewall).....70&10%

REGISTER FACES

Japanned, Bronzed and Plated
4x6 to 14x14.....70%
14x14 to 26x42.....75&10%
Heavy Round Gratings.....75&10%
White Porcelain Enameled...50&10%
Solid Brass or Bronze Metal.....40%

RINGS.

Bull.

	2½ in.	3in.
Copper		
Per doz	$1 10	$1 40
Rea's Improved Self-Piercing copper, pr doz	2 00	....
Steel, per doz	85	95
Nickel plated	1 35	....

and Ringers—Hog.
Blair's Rings.....per doz. $0 55
Blair's Ringers..... " 75
Brown's Rings..... 50
Brown's Ringers..... " 80
Champion Ringers.... " 1 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils.. " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality .....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb. 15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....25%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's .....%25
Cross-Cut
Disston's.....45%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprize, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling 25%
One Man.....50%
Panel
Brown's 30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's 25%
Disston's 25%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel .....per doz, 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea.	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in	1	1½	1¾
	$3.50	4.00	4.75

Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....80&10%
Jack .....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial

Nos	1	2	3	4	5	6
Per doz.	18c	20c	24c	30c	23c	25c

Wood.
F. H. Bright.....87½&5%
R H Blued.....85%
F. H. Jap'd.....82½%
F. H. Brass.....35%
R. H. Brass.....30%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $6 00
Clipper, grass..... " 8 25
Clover Leaf Dutchman. " 7 50
Honest Dutchman..... " 7 50
Be Ve Be..... " 7 50

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 33
Square, common..... " 42
Octagon, common.... " 33
No. 5, square..... " 75
Cup point, knurled... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz. $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond..... per doz $1 00
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 55
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
California Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip.,doz.... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.60

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal.
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list . ....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c
Reliance.
Per doz ... light, $1.25; heavy, $2 50
Star.
Per doz .... light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&10%
(Add for bluing, $2.50 per doz., net.)
Miter.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb ...9½@9½c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 60
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan .....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60% @60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$33 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6
Oil—Unmounted.
Arkansas Hard .....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Quachita..... " 35
Washita..... " 35
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 55
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 80

TACKS.

American Cut.....80&15%
American Wire.....85&20%
Bill Posters Cut.....80&80%
Felt Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....80%
Copper.....per lb. @ 32c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 50c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballou.....per doz. $1 25
Harper's..... " 1 25
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker..... " " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Glover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....30%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag .....each $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.45 4.50 6.45

TUBS, WASH

Standard, Wood. Ex.
Nos..... 3 2 1 large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz..... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " " cones....25c
4 " " " " " 25c
India Hemp, ½-lb. balls 19c
" " ½-lb. " 18c
" " ¼-lb. " .....doz. 75c
2-ply Jute, ½-lb. " 14c
3-ply Jute, ½-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seine.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-ply "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6½c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide.
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel.....
Parker's Victor.....
Parker's Combination.....60%
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Flue Pots,
Tinned..... .....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast Iron . . .per lb. 2½c
Wrought iron in bulk, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½
9c 6½c 5c 4½c 4½c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—

See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10½
Saw..... " 8½

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 60

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b Chicago....pr ton, 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads.. per 100 lbs. $2.23 $2.63
Less than car " 2.43 2.73
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....30&10%,33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....50%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80% @80&10%
In 5-lb. spools.....per lb.....20c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1.....85cnet
Always Ready.....50%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S" .....per lb. 6c
Malleable..... " 6c
Stillson Pipe.....70%

WRINGERS.

No. 22, Guarantee....per doz. $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No. 350, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
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Boilers—Steam

Boynton Furnace Co., Chicago, Ill

Boilers—Wash

Atlantic Stamping Co., Rochester, N.Y

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Berger Bros. Co., Philadelphia, Pa

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Columbus Bolt Wks., Columbus, O

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Niagara Machine & Tool Works, Buffalo, N. Y
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Bromwell Brush & Wire Goods Co., Cincinnati, O

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North Bros. Mfg. Co., Philadelphia, Pa
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Smith & Hemenway Co., New York, N.Y
Stanley Rule and Level Co., New Brittain, Conn

Carriage Forgings

Columbus Bolt Works, Columbus, O

Ceilings

Berger Mfg. Co., Canton, O
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Canton Art Metal Co., Canton, O
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Conductor Hangers

Berger Bros. Co., Philadelphia, Pa

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American Rolling Mill Co., Middleton, Ohio
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Clark, Quien & Morse, Peoria, Ill
Delphos Mfg. Co. Delphos, Ohio
Eller Mfg. Co., Canton, O
La Crosse Steel Roof. Co., La Crosse, Wis
Schoedinger F. O., Columbus, O

Conductor Pipe Machinery

Armor-Clad Mfg. Co., Canton, O

Copper and Brass

Hussey & Co., C. G., Pittsburg, Pa

Core Compound

Obermayer Co., S., Cincinnati, O

Corn Cribs

Denning Wire & Fence Co., Cedar Rapids, Ia

Cornices

Berger Mfg. Co. Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co. Canton, O
Schoedinger, F. O., Columbus, Ohio

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Bertsch & Co., Cambridge City, Ind
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Niagara Machine & Tool Wks., Buffalo, N. Y.
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Heller & Co., W. B. Montpelier, O

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Modern Improvements Mfg. Co. Brooklyn, N. Y.

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Robinson, Mfg. Co., J. M., Cincinnati, O

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Burham Safety Razor Co., New York, N.Y
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Simmons Hardware Co., St. Louis, Mo
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LaCrosse Steel Roof. Co., La Crosse, Wis
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Sullivan-Geiger Co., The Indianapolis, Ind.

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Griffin Mfg. Co., Erie, Pa
Safety Door Hanger Co., Ashland, O

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Canton Art Metal Co., Canton, O
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Dieckmann, Ferdinand. Cincinnati, O.
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Milwaukee Corrugating Co., Milwaukee, Wis.
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Elevators

Kimball Bros. Co. Council Bluffs, Ia

Enameled Ware

Lalance & Grosjean Mfg. Co., Chicago, Ill
Star Enameling & Stamping Co., Pittsburgh, Pa

Fencing—Wire

American Steel & Wire Co., Chicago, Ill
Denning Wire & Fence Co., Cedar Rapids, Ia
Janesville Barb Wire Co., Janesville, Wis
Pittsburgh Steel Co., Pittsburgh, Pa

Files

Carver File Wks, Philadelphia, Pa
Disston, Henry & Sons, Philadelphia, Pa

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Warren Mfg. Co., J. P., Chicago, Ill

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Foundry Supplies

Obermayer, S. Co., Cincinnati, O

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Sterling Foundry Co., Sterling, Ill

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Furnaces—Hot Air

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Forest City Foundry Co., Cleveland, O
Graff Furnace Co., New York, N. Y
Green Fdy. & Furn. Wks., Des Moines, Ia
Haynes-Langenberg Mfg. Co., St. Louis, Mo
Henry & Scheible Co., Cleveland, O
Kelsey Heating Co., Syracuse, N. Y
Monroe Fdy. & Furn. Co., Monroe, Mich
Reit & Co., Walter S. Chicago, Ill
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Stove & Range Co. of Pittsburgh, Pittsburgh, Pa
Youngstown Furn. & Supply Co., Youngstown, O

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Green Fdy. & Furn. Wks., Des Moines, Ia
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Gas Machines

Whitacre Mfg. Co., J. E. Chicago, Ill

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Ringen Stove Co., St. Louis, Mo.
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Denning Wire & Fence Co., Cedar Rapids, Ia

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Sycamore Wagon Wks., Sycamore, Ill

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Hardware Specialties

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Pullman Mfg. Co, Rochester, N. Y
Smith & Hemenway Co., New York, N. Y
Sterling Foundry Co., Sterling, Ill
Sturges & Burn Mfg. Co., Chicago, Ill
Welland, Chas., New York, N. Y

Heaters—Hot Water

Detroit Heating & Lighting Co., Detroit, Mich

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Griffin Mfg. Co., Erie, Pa
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Sperry, D. R. & Co., Batavia, Ill

Hones

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Standard Horse Nail Co., New Brighton, Penna

Horse Shoes

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Star Enameling and Stamping Co., Pittsburgh, Pa

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Milbradt Mfg. Co., St. Louis, Mo

Lard Presses

Enterprise Mfg. Co. of Pa. Philadelphia, Pa

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Denning Wire & Fence Co., Cedar Rapids, Ia

Lawn Mowers

Clipper Lawn Mower Co., Dixon, Ill

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Detroit Heating & Lighting Co., Detroit. Mich
Whitacre Mfg. Co., J. E., Rockford, Ill

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Foy, Edw. A. & Co., Cincinnati, O
Maher & Son Lightning Rod Co., Preston, Ia

Metal—Perforated

Harrington & King Perforating Co., Chicago, Ill

Metal Polish

Nickle Plate Stove Polish Co., Chicago, Ill

Metal Shingles

Burton W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Nat'l Sheet Metal Roofing Co., Jersey City, N. J

Mica

Munsell & Co., Eugene Chicago, Ill

Milk Cans

Sturges & Burn Mfg. Co., Chicago, Ill

Miters

Whitacre, J. E. Mfg. Co., Rockford, Ill

Nails and Tacks—Copper

Hussey & Co. C. G., Pittsburg, Pa

Nails—Wire

Janesville Barb Wire Co., Janesville, Wis

Nuts

Columbus Bolt Works, Columbus, O

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Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co., Jersey City, N.J

Pencils

Dixon, Jos. Crucible Co., Jersey City, N.J

Perforated Metal

Harrington & King Perforating Co., Chicago, Ill

Pipe—Furnace

Michigan Safety Furnace Pipe Co., The Detroit, Mich

Plungers

Berger Bros. Co., Philadelphia, Pa

Pumps

Star Bucket Pump Co., St. Louis, Mo

Punches

Armstrong-Blum Mfg. Co., Chicago, Ill
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N.Y
Robinson, Mfg. Co., J. M., Cincinnati, O

Putty—Stove

Connors Wm., Paint Mfg. Co., Troy, N.Y

Rasps

Disston, Henry & Sons., Philadelphia, Pa
Carver File Wks., Philadelphia, Pa

Rat Traps

Bromwell Brush & Wire Goods Co., Cincinnati, O

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Burham Safety Razor Co. New York N.Y
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Simmons Hardware Co., St. Louis Mo
Smith & Hemenway Co., New York, N.Y

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Henry & Schetbie Co., Cleveland, O
Schwab & Sons Co., Milwaukee, Wis
Tuttle & Bailey Mfg. Co., New York, N.Y

Rivets

Columbus Bolt Works, Columbus, O

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Wheeling Corrugating Co., Wheeling, W. Va

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Auld & Conger Co., Cleveland, O

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American Rolling Mill Co. Middleton, Ohio
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Columbus Bolt Works. Columbus, O

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Shears

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson, Mfg Co., J. M., Cincinnati, O

Sheets—Black and Galvanized

American Rolling Mill Co., Middletown, O
American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Griffiths Charcoal Iron Mills, Washington, Pa
Tanner & Co. Indianapolis, Ind
Wheeling Corrugat'g Co., Wheeling, W.Va

Sheets—Ingot Iron

American Rolling Mill Co., Middletown, O

Sheets—Planished

American Sheet & Tin Plate Co., Pittsburgh, Pa
Follansbee Bros., Pittsburg, Pa
Griffiths Charcoal Iron Mills, Philadelphia, Pa
Tanner & Co., Indianapolis, Ind
Ward-Dickey Steel Co., Indiana Harbor, Ind

Sheets—Steel

American Sheet & Tin Plate Co., Pittsburgh, Pa
American Steel & Wire Co., Chicago, Ill
Follansbee Bros. Co., Pittsburgh, Pa
Griffiths Charcoal Iron Mills, Philadelphia, Pa
Tanner & Co., Indianapolis, Ind

Sheet Metal Ornaments

Berger Mfg. Co., Canton, O
Foster, Wm. & Sons Co., Springfield, Ill
Friedley-Voshardt Co., Chicago, Ill
Gerock Bros. Mfg. Co., St. Louis, Mo
Keighley Metal Ceiling Co., Pittsburg, Pa
La Crosse Steel Roofing and Corrugating Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Schoedinger, F. O., Columbus, O

Shelf Boxes

Green & Co., A. H., New York. N. Y
Heller & Co., W. B. Montpelier O

Shelving

Heller & Co., W. B. Montpelier, O
Warren Mfg. Co., J. D., Chicago, Ill

Shovels

Avery Stamping Co., Cleveland, O

Siding

Foster, & Sons Co., Wm. Springfield, Ill
Milwaukee Corrugating Co., Milwaukee, Wis

Sifters

Stuber & Kuck, Peoria, Il

Skates—Roller and Ice

Chicago Roller Skate Co., Chicago, Ill
Graffenberger, F. Milwaukee, Wis

Skylights

Berger Mfg. Co., Canton, O
Burt Mfg. Co., Akron, Ohio
Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton, O
Powers & Williams, Streator, Ill

Skylight Gearing

Weiss, H. & Co., New York, N.Y

Slate Roofing

Auld & Conger Co., Cleveland, O

Slating Nails

Hussey & Co., C. G., Pittsburg, Pa

Soldering Fluxes

Ruby Chemical Co., Johnston, Ohio

Squares, Machinists'

Disston, Henry & Sons, Philadelphia, Pa

Stampings—Sheet Metal

Avery Stamping Co., Cleveland, O

Statuary

Gerock Bros. Mfg. Co., St. Louis, Mo

Steel

American Steel & Wire Co., Chicago, Ill

Store Fixtures

Heller & Co., W. B. Montpelier, O

Stoves and Ranges

Foster Stove Co., The, Ironton O
Quality Stove & Range Co., Belleville, Ill
Ringen Stove Co., St. Louis, Mo
Schneider & Trenkamp Co., Cleveland, O
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.

Stove Mats

Stuber & Kuck, Peoria, Ill

Stove Patterns

Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N.Y
Weller Pattern Co. Quincy, Ill

Stove Pipe

Hemp & Co., St. Louis, Mo

Stove Pipe Thimbles

Stuber & Kuck, Peoria, Ill

Stove Polish

Nickel Plate Stove Polish Co., Chicago, Ill

Stove Putty

Connors Paint Mfg. Co., Wm., St. Louis, Mo
Dixon, Jos. Crucible Co., Jersey City, N. J

Stove Repairs

Brauer, A. G., Supply Co., St. Louis, Mo
Manufacturers Stove Repair Co., Chicago, Ill

Sugar Kettles

Sperry, D. R. Co., Batavia, Ill

Supplies—Foundry

Obermayer Co., S., Cincinnati, O

Supplies—Stove Dealers'

Brauer, A. G., Supply Co., St. Louis, Mo

Tapes

Lufkin Rule Co., Saginaw, Mich

Technologist

Hooper, C. H. Dubuque, Iowa

Thermometers—Oven

Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated

Harrington & King Perforating Co., Chicago, Ill

Tinners' Furnaces

Clayton & Lambert Mfg. Co., Detroit, Mich
Diener Mfg. Co., Geo. W., Chicago, Ill

Tinners' Tools

Armor-Clad Mfg. Co., Canton, O
Armstrong, Blum Mfg. Co., Chicago, Ill
Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia, Pa
Bertsch & Co., Cambridge, Mass
Dries & Krump Mfg. Co., Chicago, Ill
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson Mfg. Co., J. M., Cincinnati, O
Smith & Hemenway Co., New York N.Y
Weiss & Co., H., New York, N. Y

Tinplate

American Sheet & Tin Plate Co., Pittsburg, Pa
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware Trimmings

Berger Bros. Co., Philadelphia, Pa
Butler Bros., Chicago, Ill

Tools, Etc.

North Bros. Mfg. Co., Philadelphia, Pa
Perfection Wrench Co., Port Chester, N. Y
Simmons Hdw. Co., St. Louis, Mo
Stanley Rule & Level Co., New Britain, Conn

Tools—See Carpenters' Tools

Tools—Linemen's

Smith & Hemenway, New York, N.Y

Trowels

Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Heavy Tin

Dieckmann, Ferdinand. Cincinnati, O

Tubs—Wash

Atlantic Stamping Co., Rochester, N.Y

Ventilators

Berger Mfg. Co., Canton, Ohio
Burt Mfg. Co., Akron, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedly & Voshardt. Chicago Ill
Globe Ventilator Co., Troy, N. Y
Iwan Mfg. Co., South Bend, Ind
Merchant & Evans Co., Philadelphia, Pa
Powers & Williams, Streator, Ill
Pullman Mfg. Co., Rochester, N. Y
Sterling Foundry Co., Sterling, Ill
Uno Ventilator Co., Lynn, Mass

Wagons

Sycamore Wagon Works, Sycamore, Ill

Washers

Columbus Bolt Works., Columbus, O

Washing Machines

Knoll, Jas. H. Reading, Pa
White Lily Mfg. Co., Davenport, Ia

Wire

American Steel & Wire Co., Chicago, Ill
National Wire Cloth Co., Niles, Mich

Wire Goods

Bromwell Brush & Wire Goods Co., Cincinnati, O
Denning Wire & Fence Co., Cedar Rapids, Ia
Janesville Barb Wire Co., Janesville, Wis
National Wire Cloth Co., Niles, Mich
Pittsburgh Steel Co., Pittsburgh, Pa

Wrenches

Perfection Wrench Co., Port Chester, N.Y

Wants and Sales

For Paid Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN THE AMERICAN ARTISAN."

BUSINESS CHANCES.

PATENTS HUBERT E. PECK 623 F. STREET, N. W. Washington, D C. Consulting Expert in Patent Causes. U. S and Foreign Patents. Send for leaflet on "Rejected Patent Applications."

For Sale—Half or full interest in good hardware business. One member of firm wishes to engage in other business. Address L-87, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—I have $4,000 or $5,000 to invest in the hardware business. Would consider a quarter or half interest in a large stock with services. Address L-84, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—Good hardware man who has $5,000 to invest in the general hardware business to join with me for a like amount in some good city to be determined upon by the new firm. Have had 20 years' experience. Address L-85, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—By manufacturers agent to sell on a commission basis in Missouri, Kansas and Oklahoma, lines of housefurnishing goods, such as gas and gasoline stoves, refrigerators, stove pipe, enamel ware and kitchen utensils. Address L-81, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

For Sale—Hardware stock with tinshop in connection. Stock about $6,000. Good locality. Selling on account of death of proprietor. Address Mrs. George Rahn, 424-426 W. Belmont Ave., Chicago, Illinois. 2-3t

For Sale—Tin, sheet metal, cornice and skylight shop with stock and tools. In Southern Colorado. Reason for selling, death in family. Address Lock Box 843, Trinidad, Colorado. 2-3t

For Sale—Hardware stock. Invoices about $3,000. Splendid location. Northern Illinois town, near Chicago. Address L-76, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 1-3t

Wanted—Hardware stock. Do you want to sell and sell quick for cash? Will pay from fifty to sixty cents on the dollar. Give full description in first letter. Address L-77, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 1-3t

Wanted to Buy—Stock of hardware. One doing a good business in all lines of heating and plumbing and where some can be added to advantage. Prefer a location in the West or Northwest in city of 3,000 or larger. Cash proposition. Address, giving particulars, J. W. Winterbottom, Falls City, Nebraska. 26-3t

TINNER'S TOOLS.

For Sale—Complete set of tinner's tools in first-class condition—from snips up to square shears. Write for price list. Address L-78, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—Eight or ten-foot brake in good condition. Address Great Western Stove & Repair Co., Minneapolis, Minnesota. 2-1t

Wanted—Complete set second-hand tinner's tools. Must be in first-class condition. Send complete description and lowest cash price. Address C. F. Bemis, 122 West 32nd St., Minneapolis, Minnesota. 1-3t

Wanted to Buy—Will pay cash for one ten-foot cornice brake in good condition. Send description and price. Address John Droegkamp Co., 1515 Fond du Lac Ave., Milwaukee, Wisconsin. 1-3t

Wanted—One 30" stove pipe former; one 30" stove pipe folder; one small burring machine; one light crimper; one mandrel. Must be in good condition and cheap. Address Adolph Scheid, 719 E. Third St., Mishawaka, Indiana. 1-3t

Wanted—A 28-inch Lyon Conklin cross lock seamer for putting tin together; one 8-foot cornice brake; one lever punch and shears. Prefer second-hand machines, but must be in first-class working order and cheap for cash. Address Jno. F. Cartwright, 815 State St., Bowling Green, Kentucky. 26-3t

HELP WANTED.

Help Wanted—Man to help about store, who is capable of doing ordinary tinning, plumbing and heating when called upon. To such a man will give steady work with good wages. References. No boozer need apply. Address L-79, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Salesman Wanted—To sell reliable line of furnaces in Wisconsin, for manufacturer on commission. Address L-82, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Tinner Wanted—To work as tinner and clerk. Must have good references. Steady job. No time lost. Address P. McCartney, West Chicago, Illinois. 2-3t

Wanted—Up-to-date cornice cutter and working foreman for tin and slate roofing. Able to handle cornice and skylight work from plans. Steady, sober and competent man. Address George K. Weissenberger, 4004 Spring Grove Ave., Cincinnati, Ohio. 1-3t

Wanted—First-class tinner that can do plumbing, furnace work, pump and wind mill work. Must be sober and reliable. Steady job. Please give references. Address L-72, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 26-3t

Wanted—Reliable all around tinner and furnace man, who has a knowledge of plumbing and repairing. Steady position for sober and capable man. State wages wanted in first letter. Address L-73, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 26-3t

Wanted—Experienced general hardware salesman, fully acquainted with builders' hardware and methods of figuring from plans and specifications. Give age, salary wanted, experience and lines acquainted with and for whom you have worked. Address J. Ed. Guenther, Owensboro, Kentucky. 26-3t

SITUATIONS WANTED.

Situation Wanted—As retail hardware clerk. Twelve years' experience. Age 28 Best of references. Address L-86, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Situation Wanted—By mechanic who can handle anything in heating, plumbing or sheet metal line. Can furnish complete outfit of tools for any kind of work. Address L-80, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Situation Wanted—By tinner. Would rent shop and run it on percentage basis. Address L-83, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Situation Wanted—As retail hardware and stove salesman by young man 27 years of age. Five years' experience as traveling stove salesman, also retail experience. Successful record and can make good. Address L-88, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Situation Wanted—By first-class all around tinsmith and furnace man. Strictly sober and reliable. Address E. J. White, Box 619, Kalispell, Montana. 2-3t

Situation Wanted—By tinner and furnace man. Can do all kinds of pipe work. Good references furnished. Married and want steady job. Address E. M. True, General Delivery, Kansas City, Kansas. 2-3t

Situation Wanted—By tinner with 21 years' experience in both inside and outside work. Address Box 101, Preston, Minnesota. 1-3t

Situation Wanted—As clerk in hardware store. Can also help in tinshop. Age 30 years; no bad habits. About five years experience at tinner's trade and clerking in hardware store. Speak German and English. Can furnish references. For particulars write Reedsburg Hardware Co., Reedsburg, Wisconsin. 1-3t

Situation Wanted—By first-class tinner and hardware clerk. Can do ordinary plumbing and jobbing. Will furnish best of references. Prefer town of 500 to 1,000. Address Box 1, Hugo, Minnesota. 1-3t

SPECIAL NOTICES.

STOVE SALESMEN WANTED

For a complete modern line of Gas, Coal and Wood Stoves. Territory—one for Western New York and Pennsylvania, also one for Indiana and Eastern Illinois. Address B 63, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 24-ufn.

WANTED

A capable man who can handle a japanning department in a tin can factory and who understands the mixing of paints. Advise wages wanted and if strictly sober and where now working. Reply to National, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 26-4t

WANTED

Traveling Salesman to represent a well known manufacturer of stoves and ranges in Southern Wisconsin. Also a man for the state of Iowa. Address B-70 care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois, giving past experience and references. 26 4t

We Want a Foreman

For our Wood and Iron Pattern Shop. The best man in the United States is the man we want, and we can make it interesting for this man. Our shop is located in an Eastern City and is occupied in the production of all kinds of heating and cooking apparatus. Address B-54, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 22-5t

WANTED

Experienced, live stove salesman for Indiana, Michigan and Ohio. Address, giving experience, salary, age, etc., Missouri, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 26-3t

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WANTED — To sell the best Combination Can Opener, Knife and Shear Sharpener on the market. Sells on sight. Can be carried as side line. Sample mailed for 25 cents. Terms dealers. Address Atlas Stamping and Plating Works, 58 West Jackson Boulevard, Chicago, Illinois. 1-13t

Situation Wanted

By first-class Stove Salesman of considerable ability with established trade in New Jersey, New York and Pennsylvania. In habit of calling on large trade. First-class reference. Address B-37, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 19-ufn

WANTED

An experienced man who can take charge of the finishing department of a Metal Furniture Plant. Must know the best and most modern methods. State experience and salary wanted. Address HYGIENE CABINET COMPANY, Carlisle, Indiana. 2-2t

FOR SALE

Sheet Metal Shop. Excellent location. Well equipped. Fine trade, only shop in vicinity. Should net $4,000.00. Family reasons for selling. Address B-75, THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 1-3t

FOR SALE

A quantity of 18 GAUGE GALVANIZED STEEL 3½" wide by 96" long. Address J. E. Whitacre Mfg. Co., Rockford, Illinois. 1-4t

SALESMAN WANTED

A strong specialty salesman for Nebraska. Must have experience calling on hardware trade and be familiar with tinware and galvanized ware. Must be able to deliver the goods and ready to take up the work at once. Good trade established, commission basis. Give age, experience and references. None but salesmen need apply. Address B-77, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 2-3t

Wanted

A Salesman experienced in selling Tin Plate, Sheets, Roofings and Sheet Metal Products. Ohio and Indiana Territory Advise experience, giving territory and acquaintance with trade. Furnish reference. State salary wanted. Address Experience, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 2-2t

Position Wanted

Experienced stove salesman would like to correspond with stove manufacturer in need of man in Chicago or West. Address B 62, care of THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 24-ufn.

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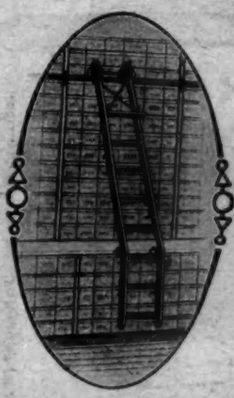

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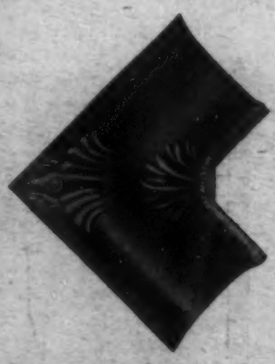

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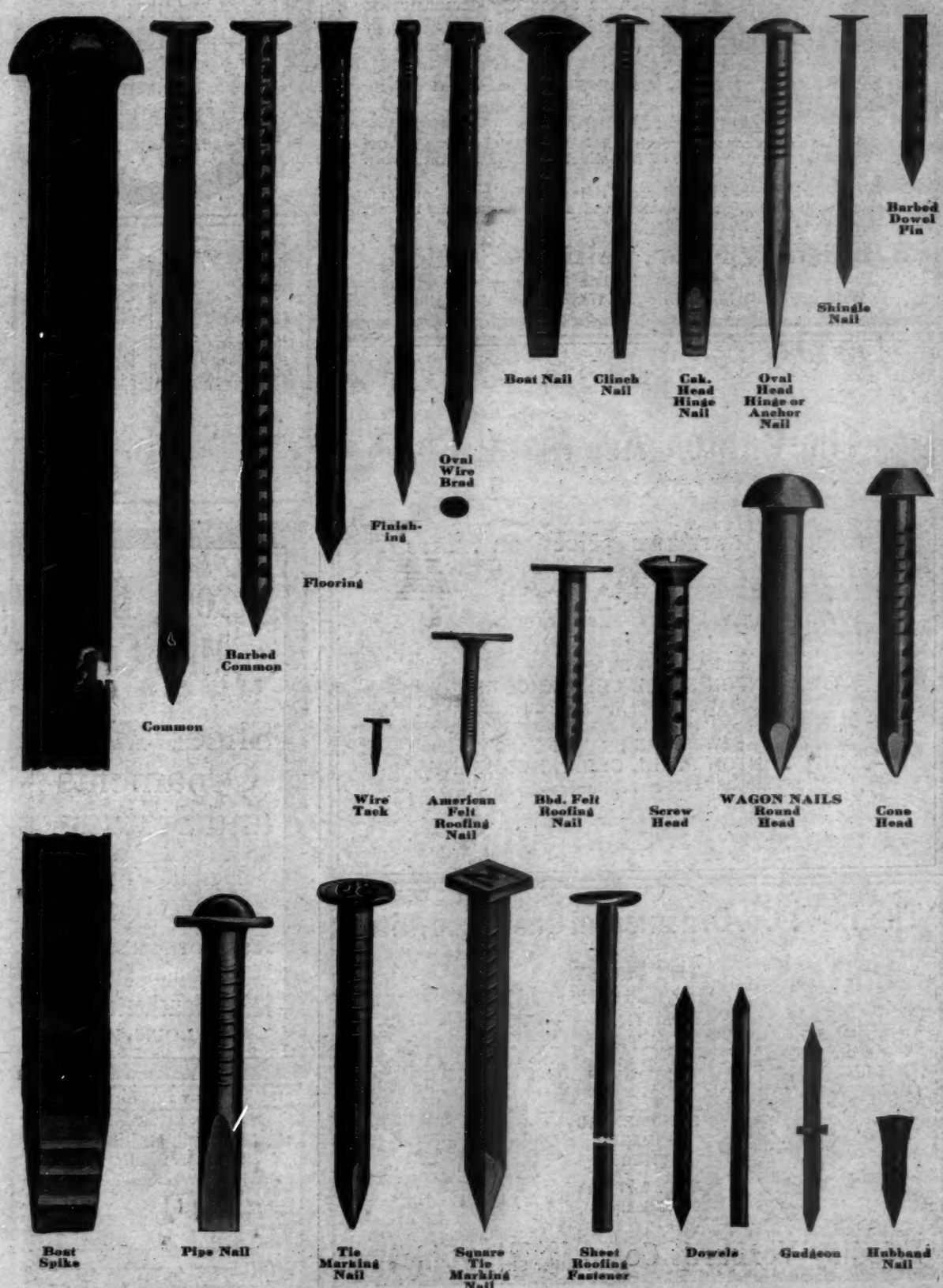

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PHILADELPHIA, 402-4-6 Race St.
BOSTON, MASS., 132-134 Pearl St.
CHATTANOOGA, TENN., King St.

HOW IS THIS ONE?

You will be pleased with any design you may select for the quality is the same. We maintain the same high standard of excellence in every Steel Ceiling put out.

Let us hear from you.

F. O. SCHOEDINGER, Dept. 3. 146—North Third Street—148 **Columbus, Ohio**

AMERICAN INGOT IRON

RUST RESISTING SHEETS

99.94% PURE

AMERICAN GENUINE INGOT IRON

Write for Price Sheet AA On Roofing, Black and Galvanized Sheets

Purest Iron Made In This Country or Abroad

Accelerated Acid Tests Demonstrate Its Superiority to Charcoal Iron Sheets

MIDDLETOWN, O.

MANUFACTURED EXCLUSIVELY BY

THE AMERICAN ROLLING MILL CO.

MIDDLETOWN, OHIO

Do as other Wide-Awake Dealers are doing.

Show your Customers the big New Catalog of

Berger's "Classik" Steel Ceilings

It has paid others to do this. It will pay you.

If you haven't the Agency for Berger's "Classik," *Get It.*

If you haven't the Catalog, *Get It.*

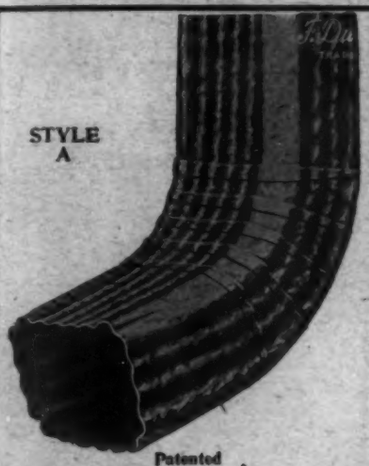
Don't delay, and risk missing the agency. *To-day* is the day.

Write to-day for Catalog D8, and details.

THE BERGER MFG. CO.

CANTON, OHIO.

New York, Philadelphia, Boston, Chicago, St. Louis, Minneapolis, San Francisco, Atlanta.



STYLE A

Patented

SQUARE ELBOWS

Made of One Piece of Metal, Bear Trade Mark

F. Dieckmann

Galvanized After Formation—Charcoal, Copper, Old Style.

THE F. DIECKMANN CO.

Station B. CINCINNATI, OHIO

STYLE B

Patented.

GRIFFITH'S GENUINE CHARCOAL IRON ROOFING PLATES

They make the most durable roof known for every kind of building.

They make, in the long run, the cheapest roof known, and the first cost is no greater than that of heavily coated steel plate roof.

CHARCOAL IRON PLATES are more resistant to corrosion than anything made—demonstrate it for yourselves by sending for method of test.

They are the kind you should use. Write for other reasons.

GRIFFITH'S CHARCOAL IRON MILLS :: :: WASHINGTON, PA.

"TITELOCK" METAL SHINGLES

ABSOLUTELY PERFECT IN ALL POINTS OF CONSTRUCTION.

"Invisible Joint" STEEL CEILINGS

"TITELOCK" Style "A"

ALL JOINTS FIT AS IF MADE OF ONE PIECE.

"TITELOCK" Style "B"

Milwaukee Corrugating Co.

Send for Shingle Booklet. MILWAUKEE, WIS. Chicago, 89 E. Lake St. KANSAS CITY, MO. Send for Ceiling Catalog.

Plecker's *Corrugated* Expanding *Conductors*

Have no Cross Seams. Made of Galvanized Iron in ten-foot lengths. [redacted] Will not burst when full of ice.

CLARK, QUIEN & MORSE. PEORIA, ILL.

GRAY'S SCHOOL.

$120.00 PRIZE CONTESTS $120.00

Three Separate Contests for 1909.

WILL YOU JOIN OUR PRIZE CONTEST?

This is not a Marathon endurance race that cuts years off your life to win. But it is a CONTEST OF SKILL THAT BRINGS OUT AND DEVELOPS YOUR HIDDEN ENERGIES SO THAT YOU CAN APPLY THEM IN YOUR EVERY DAY WORK.

You will never know what you can do until your best energies have been put to a test. This school is MORE THOROUGH AND FAR ADVANCED IN DETAILING AND DEVELOPING SHEET METAL WORK THAN ANY OTHER, WHICH HAS BEEN AMPLY PROVEN BY THE SUCCESS AND RAPID ADVANCEMENT OF OUR MANY SCHOLARS.

Enroll now and be ready to start contest which begins Feb. 1st and closes Dec. 31st, 1909. Write for full information concerning this school and prize contest, enclose 4 cents in stamps to cover postage to

GRAY'S SCHOOL, - 1028 Jackson Avenue, New York

When writing please mention this Journal.

The "Best" T Chimney Top

This top is proving a big seller and giving perfect satisfaction. Send for our catalog of Hardware Specialties.

Every one the "Best"

STERLING FOUNDRY CO.
Sterling, Illinois

DELPHOS B. B. GALVANIZED SHEETS

Absolutely Perfect.

DELPHOS Corrugated, Pressed Standing Seam, V Crimp, Three V Crimp, Roll, and Roll & Cap Galvanized Roofings.

All Roll Roofings Resquared and Double Cross Locked.

DELPHOS Galvanized Eaves Trough, Conductor Pipe, Elbows, Etc. Roofing Plates (All grades).

SOLDER—Faultless, B. T. & L. and Standard Brands.

DELPHOS MFG. COMPANY
DELPHOS, OHIO

Write for our New Catalogue.

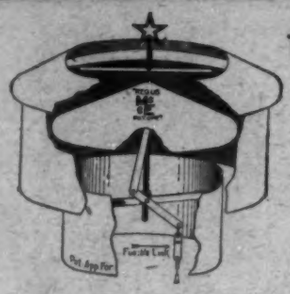
Uno Revolving Ventilators

A sure cure for smoky chimneys, the best for ventilation.

4" to 30"

Send for Catalogue

Uno Ventilator Co.
P. O. Box 209. LYNN, MASS.



The "STAR" VENTILATOR

AND

The FIRE RETARDING "STAR" VENTILATOR and DAMPER COMBINED

Embody everything in the Best Scientific Storm Proof Ventilator.

MERCHANT'S METAL "SPANISH" TILES and "GOTHIC" SHINGLES.

These Tiles and Shingles have proved meritorious for years. They are in demand where ornamentation is essential. Also Lightness and Durability are special features of merit.

"Reg. in U. S. Pat. Off."

Write for Booklets.

Merchant & Evans Co.

Sole Manufacturers

Chicago · Kansas City · Philadelphia · New York · Brooklyn · Baltimore · Denver

Standard Metal Shingles

The Canton Ventilator

Made with Metal and Glass Tops and with and without **Automatic** closing device.

THE CANTON MFG. CO.
CANTON, OHIO

Makers of
Cornice, Skylights, Metal Ceilings, Eaves Trough, Conductor Pipe, Etc.

SIX STANDARD PRODUCTS

USED BY ALL THE LEADING STOVE AND RANGE MANUFACTURERS

W. Dewees Wood Company's Patent Planished Iron.
Wood's Cleaned Refined Smooth Finish.
Hammered Polished Steel.
Wood's Oak Stove Body.
Wellsville Polished Range Steel.

MANUFACTURED BY

AMERICAN SHEET AND TIN PLATE COMPANY

FRICK BUILDING · PITTSBURGH, PA.

Iwans' Volcano Revolving Chimney Top

Sizes 6 to 12 inches. Sold by jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features.** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

You need it for some of your customers' chimneys.

Send postal for catalogue.

IWAN BROTHERS
Mfrs. of Hardware Specialties
SOUTH BEND, IND.

The Powers AUTOMATIC Chimney Top

Iron mountings only or complete with cover and vane.

Double the sale and triple the efficiency of smoke stacks.

Powers & Williams
Streator, Ill.

Ask us for prices on skylight glass and metallic skylights.

$100 IN GOLD FOR WINDOW DISPLAYS SEE PAGE 11.

DISCRIMINATING DEALERS ENDORSE "ELLER"

ART METAL CEILINGS

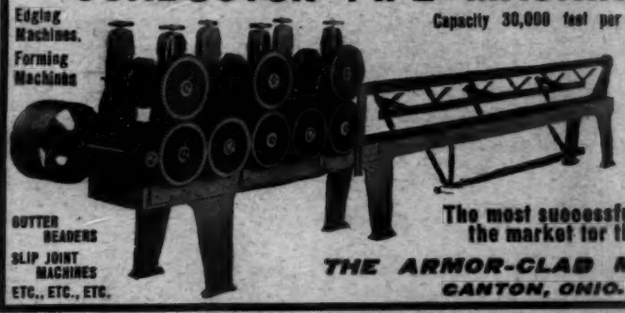
TIN AND TERNE PLATE — STEEL ROOFING
EAVES TROUGH, CONDUCTOR PIPE — BRICK and STONE SIDING
ELBOWS and SHOES — CORNICE and SKYLIGHTS

"The ELLER trade-mark stands for the best in steel." *Write to-Day* for Catalog.

ELLER MFG. CO. : : CANTON, OHIO

CONDUCTOR PIPE MACHINERY

Edging Machines. Forming Machines. GUTTER BEADERS. SLIP JOINT MACHINES. ETC., ETC., ETC.



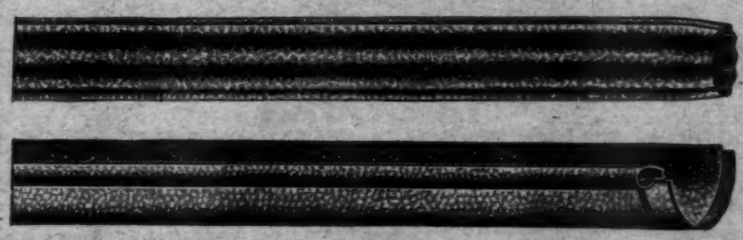
Capacity 30,000 feet per day of 10 hours.

Plain Round, Round Corrugated and Fluted PIPE.

The most successful machine on the market for the purpose.

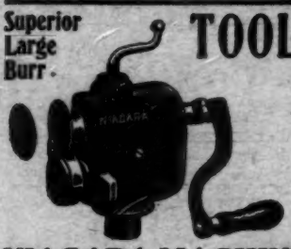
THE ARMOR-CLAD MFG. CO., CANTON, OHIO.

BERGER BROS. CO., Manufacturers of PIPE AND GUTTER, HEAVY GAUGES and COPPER A SPECIALTY.



BERGER BROS. CO. Office and Store, 237 Arch St.; Warerooms, 100-02-04 Bread St.; Factory, 3114-16-18-20 N. 17th St., Philadelphia.

Superior Large Burr.



TOOLS FOR SHEET METALS

INCLUDING

Tinners' and Roofers' Tools, Shears, Punches, Presses and Dies, Can-Making Machinery

MADE BY

NIAGARA MACHINE & TOOL WORKS, Buffalo, N. Y.

MARVEL

Patent applied for

PORTABLE PUNCH No. 20

Made entirely of STEEL

Punches ¾ in. hole in ¾ in. and equivalent

Let us send you one on trial.

Write for circular and price of this and other Marvel Punches and Shears.

ARMSTRONG-BLUM MFG. CO., 106 N. Francisco Ave., Chicago, Ill.

C. G. Hussey & Company

PITTSBURGH, PENNA.

Manufacturers of

Soft Copper, Copper Gaskets, Copper Bottoms, Soldering Irons — Copper Nails and Tacks, Tinned Copper, Polished Copper, — Cold Rolled Copper, Special Shapes Sheared or Stamped, Slat ng Nails,

PROMPT SHIPMENT FROM STOCK.

Gee, Its great to be Crazy. At least some think so, and continue to use poor tools, and for this reason are not making the money they should. The up-to-date Johnnie-on-the-Spot Mechanic always uses the latest and best tools and you will find that the No. 32 torch is a favorite with him, and he will tell you that he could not afford to use anything but a No. 32 if it were given him.

No. 32 Torch, $4 Net

Jobbers supply at factory price, or if cash accompanies order we will ship direct.

CLAYTON & LAMBERT MFG. CO.

Detroit, Mich., U. S. A.

SKYLIGHT GEARING AND Chain Lifts

Tinsmiths, Plumbers, Cornice Makers and Coppersmiths

TOOLS

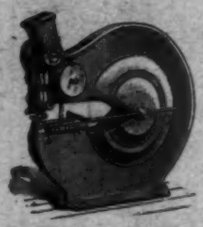
Pipe Threading Machines

Second Hand Goods Bought and Sold

H. WEISS & COMPANY

20 Cliff Street, NEW YORK

LEVER PUNCH



This Lever Punch is made any required size. It is a convenient tool for punching plates, bars or angles. We build a complete line of Shears, Punches and Bending Rolls, all sizes, hand or power.

Write for Catalog "F."

BERTSCH & CO.

CAMBRIDGE CITY, IND.

Empire Door Holder

Improved

50 per cent greater pressure on the floor than any other. Easy to apply. Easy to operate.

CALDWELL MFG. COMPANY

41 Jones St., Rochester, N. Y.

C. N. HOOPER, Dubuque, Ia.

Vitreous Enameling TECHNOLOGIST

Designs, builds and starts new plants, improves quality and reduces the costs in those already established.

Beautiful Designs

ARE WHAT SELL

Metal Ceilings and Side Walls

provided they have the other requisites, such as Accuracy of the Plates, Originality of Design, Perfect Fitting Joints, and the best materials used in their Construction. OUR GOODS HAVE ALL THESE AND MORE. Let us show you. Write for Catalog "A" to-day.

Wm. Foster & Sons Sheet Metal Works

1000 E. Carpenter Street SPRINGFIELD, ILL.

La Crosse Steel Roofing and Corrugating Co.

LA CROSSE, WISCONSIN

MANUFACTURERS OF

EAVES TROUGH
CONDUCTOR PIPE
CUT OFFS
MITRES, ENDS AND DROPS
ROOFINGS AND SIDINGS
STEEL CEILINGS
CORNICES
SKYLIGHTS

Quick Shipments Our Specialty *Send for Catalog*

TWO MORE REASONS WHY STEEL BRAKES EXCEL

OTHERS WILL FOLLOW

The strength of steel being approximately three times that of iron it is clear that much heavier work can be done with the same effort on a brake so constructed.

Another quality of steel is that it will not warp like wood nor get sprung as iron will, thus assuring a straight and perfect bend always.

A postal will bring you net prices F. O. B. your city.

DREIS & KRUMP MFG. COMPANY

Halsted and 32nd Street, CHICAGO

The easiest selling Mower on the market. Send for circular.

The Clipper

The modern Mower demanded by the trade.

Clipper Lawn Mower Co.

DIXON, ILL.

Manufacturer of Hand and Pony Mowers and Marine Gasoline Engines

RUBY FLUID

¶ Is anti-rusting, non-corrosive, non-poisonous and non-explosive, not affected by age or change of temperature or exposure in open vessels. It is a perfect flux for GALVANIZED and ALL other metals. Shipped in tin cans, ready for use. On ten days trial.

The Ruby Chemical Co., Johnstown, Ohio, U. S. A.

Chas. M. Hoover, Sales Mgr., Revere House, Chicago.

YOU

need a Tinner, Furnace Man or Hardware Clerk. A want ad in

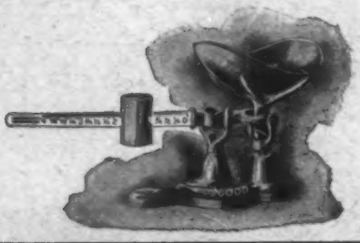
THE AMERICAN ARTISAN

That's all that's necessary to solve the problem.

Osgood Scale Company

U. S. STANDARD Binghamton, N. Y.

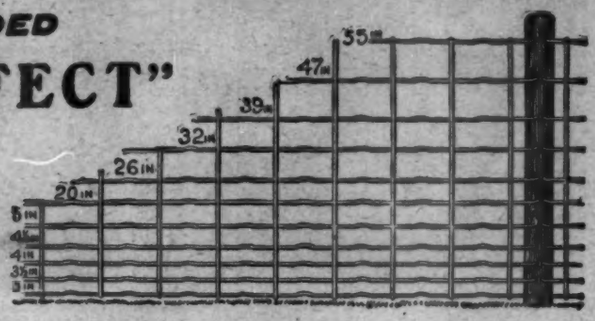
ALL KINDS



Eliminate All Your Fence Troubles by Using the

ELECTRICALLY WELDED

"PITTSBURGH PERFECT" Fences

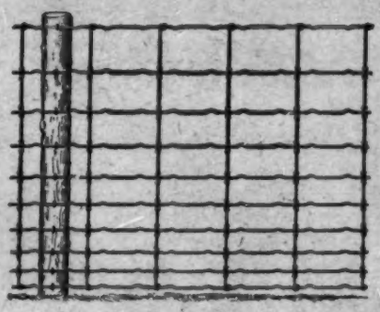


The strongest on the market and the most satisfactory. You can't know what a really good fence is until you have tried the

"PITTSBURGH PERFECT."

WRITE FOR OUR CATALOG TO-DAY.

Pittsburgh Steel Co., Pittsburgh, Pa.



Increase Your Fence Trade

by selling the fence with the

"SWINGING JOINT"

Stretches over hilly and uneven ground more easily and perfectly than other fences on the level. Most flexible and adjustable fence made. Saves your customers "time and trouble in building their fence."

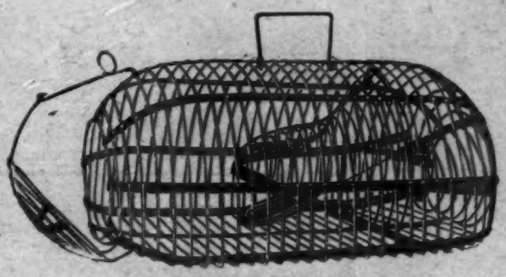
Our Catalog tells all about "APEX" and shows you the ingenious construction of the "Swinging Joint." It's yours for the asking.

BARB WIRE
WIRE NAILS
WIRE FENCING

JANESVILLE BARB WIRE COMPANY
Department A **JANESVILLE, WISCONSIN**

The Bromwell Brush and Wire Goods Co., Cincinnati, Ohio

MAKE MORE RAT TRAPS THAN ANY OTHER MAKERS IN THE WORLD



ALL LOCKED RIBBED

Five Sizes. Steel Wire and Ribs. Patent Flange, Safety Doors. All Traps Lacquered. Rust Proof. Traps always set. Rats cannot escape when in the Trap. Strongest, best made, most saleable Traps in the market.

WRITE FOR 1909 CATALOGUE

We make all kinds of Brushes and Wire Goods. Started in 1819 and still at it. GET OUR PRICES.

YANKEE [All Steel] DAMPERS and CLIPS

FOR SMOKE PIPE AND FURNACE PIPE

THE S. M. HOWES COMPANY, 40-46 Union St., BOSTON

THE HARRINGTON AND KING-PERFORATING CO.

PERFORATED METALS

OF EVERY DESCRIPTION AND FOR ALL PURPOSES

FOR SCREENS OF ALL KINDS

No. 212 NORTH UNION STREET, CHICAGO, ILL.

New York Office, 114 Liberty Street.

We Manufacture 12 and 14 Mesh

ALUMINOID

in all widths made of 33 wire.

Heavy in 28 wire.

SEND FOR SAMPLES.

NATIONAL WIRE CLOTH CO., Niles, Mich.

DEALERS! Here is a sample of our Farm Advertising

Handle ours and you will be on the right side. The farmer knows about them. We have a branch at Kansas City and can ship on short notice.

"THE DENNING" CORN CRIBS AND GRAIN BINS

Will store your whole crop at a nominal cost.

"THE DENNING" FENCE

Will take care of your poultry, hogs and stock.

"THE DENNING" LAWN FENCE

Will ornament your premises.

Ask your dealer for "The Denning." Take no substitute.

THE DENNING WIRE & FENCE CO. CEDAR RAPIDS, IOWA

You Are Invited to Take Notice of the

White Lily Motor Washer

¶ It will be a valuable addition to your line. ¶ This new Water Motor Machine is of standard **White Lily Quality** throughout. ¶ The motor is small and compact, but powerful. ¶ It is of the simplest construction, there being no springs in the cylinder, and only one in the piston. ¶ Wearing parts are all brass—Tubs of selected Louisiana cypress—Stave legs—Mahogany finish.

Operates on Very Low Pressure

WHITE LILY MFG. CO.

1500 Rockingham Road, Davenport, Iowa

We Have a Hardware Delivery Wagon That You Can Depend Upon

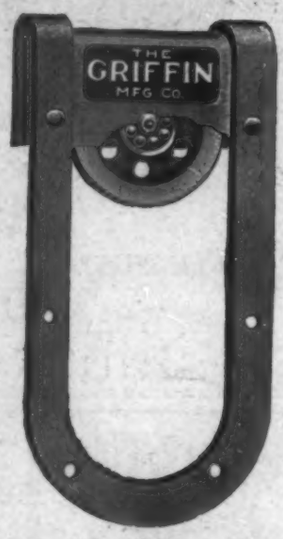
Body 20 inches from the ground, fu'l width; regular height wheels, and yet will turn short.

EASY TO LOAD AND UNLOAD

Durability guaranteed. Complete catalogue on request, Mention this paper and address in full.

SYCAMORE WAGON WORKS, 109 EDWARDS ST., Sycamore, Ill.

GRIFFIN'S



Improved Steel Door Hangers

Made Entirely of Steel (wheels excepted)

These Hangers have hard steel Axles and Roller Bearings. Anti-Friction on any length of track.

Guaranteed to handle the heaviest doors satisfactorily.

Write for complete catalog of Hinges, Butts, Shelf Brackets, Door Bolts, etc.

THE GRIFFIN MFG. CO.

1500 Cherry St., ERIE, PA.

The QUEEN WASHER

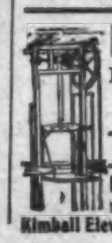
YOUR BUSINESS

DEMANDS that you secure the *Sole Agency* of this washer

It has the merit to make Large Sales for you and offers an opportunity you should not neglect. WRITE TODAY.

Sold to Jobbers only for specified territory.

JAS. H. KNOLL, - - Reading, Pa.



ELEVATORS

Improved Quick and Easy, Rising Steam, Electric and Hand Power.

SEND FOR CIRCULAR

KIMBALL BROS. CO.

1031 Ninth St., COUNCIL BLUFFS, IOWA

Kimball Elevator Co., 139 Vincent St., Cleveland, O

Champion Triple Action Ice Cream Freezer

WHAT IT IS The "Champion" Freezer is especially adapted for Household Use. Its principles of construction, beside being absolutely New, are entirely Different, Novel and Better than any of the new style of household freezers placed on the market during the past few seasons. Besides being better, you can guarantee the "Champion" to your customers as being durable.

WHAT IT IS CONSTRUCTED OF The Outside Tub is made of best galvanized iron. The dasher is made of malleable iron, heavily tinned, with a Wood Scraper, which prevents the cream from adhering to the sides of the freezing can while in process of freezing. The Cylinder or Freezing Can is made from block tin (re-tinned.)

WHAT IT WILL DO We know that if you sell freezers, and wish to handle one that will give your trade satisfaction, and do all that the manufacturers claim it will do; that you can sell at about one-half the price of any of the old style freezers (besides giving you a liberal profit) and a freezer that will make the finest Ice Cream, Sherbets and Frozen Desserts in a few minutes, our "Champion" Freezer is the one for you to handle.

Made in Four Sizes
1 Quart.....each, $1.00
2 Quarts.....each, 1.25
3 Quarts.....each, 1.50
4 Quarts.....each, 1.75

17-19 Ninth St. REID-EDELMUTH MFG. CO. Brooklyn, N. Y.

Stand In With The Housekeepers

Give them the Jack Frost Ice Cream Freezer and watch them go to making ice cream in their homes.

If you would like to see something doing in the freezer trade this season put in a stock of

JACK FROST
Multiple Motion
Ice Cream Freezers

They are the freezers for family trade.
They will do their own advertising when they get started.
They make ice cream making easy.
Easy turning, quick work, the least ice, and no danger of spoiling the cream with oil or salt water.
Let us send you catalog No. 85 with terms and particulars.

STURGES & BURN MFG. CO.
FACTORY Harrison, Green and Peoria Sts. CHICAGO, ILL. OFFICE 235 South Green Street

Shelf Boxes,
Hardware Shelving,
Counters,
Screw, Bolt and
Seed Cases,
Store Ladders,
Glass Cutting Boards,
Immediate Shipments.
Send for Booklet.
W. B. HELLER & CO.
MONTPELIER,
OHIO

"Yankee Tools"

New Styles—Have You Seen Them?

Are Without Equal in Quality or Efficiency in Practical Use

MAGAZINE RATCHET SCREW DRIVER, NO. 68

RATCHET DRIVER with SCREW HOLDER NOS. 110-111-115

RATCHET "SCREW EYE" DRIVER, NOS. 80 and 81

ASK YOUR JOBBER ABOUT THEM
Send for "Yankee" Tool Catalog.

North Bros. Mfg. Co., Philadelphia

- SHELVING -
WARREN SYSTEM
SELF PAYING
HARDWARE STORE EQUIPMENT
IN INTERCHANGEABLE SECTIONS
& SCREW, BOLT & GUN CASES
J. D. WARREN MFG. CO. CHICAGO U.S.A.

INTERCHANGEABLE
LOCK-CORNER SHELF BOXES
For the Hardware Trade.
THE A. H. GREEN CO.,
97-101 Warren St., NEW YORK.

Something New In Breast Chains
With adjustable links and a rocker snap in the center.
COVERT'S SADDLERY WORKS
Interlaken, N. Y., U. S. A.

STANDARD HORSE NAIL CO.
NEW BRIGHTON, PA., U.S.A.
MANUFACTURE
A Full Line of Horse Nails
Send for Catalogue, Prices & Samples.

LUFKIN Measuring Tapes

are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

¶ Our extensive advertising creates a demand, that every progressive dealer should be able to satisfy.

¶ It takes but a minute and a postal to ask for our catalog—it's more than worth while.

Please Mention The American Artisan

THE LUFKIN RULE CO. Saginaw, Mich., U. S. A.

New York London, Eng. Windsor, Ont.

DISSTON SAWS

Run Easiest
Cut Fastest
Last Longest

To the practical Saw User this tells the full story of HIGHEST PERFECTION in Material, Temper, Design and Workmanship attained for the DISSTON BRAND OF SAWS.

HENRY DISSTON & SONS, Inc.

Keystone Saw, Tool, Steel and File Works

PHILADELPHIA, PA.

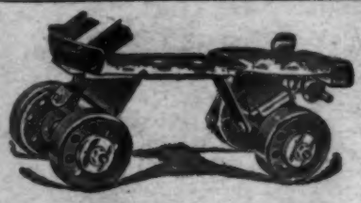
WRITE FOR CATALOG OF

Improved Carpenters' Tools

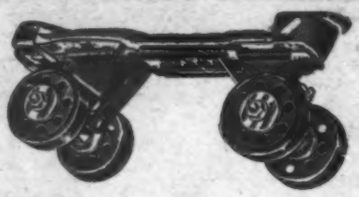
SOLD BY ALL HARDWARE DEALERS

STANLEY RULE & LEVEL CO.

New Britain, Conn., U. S. A.



Side-Walk Skates



Our Ball Bearing Extension Skates fit the "Old Man" or the "Kid." They are the strongest adjustable skates on the market. Write for catalog and prices.

CHICAGO ROLLER SKATE CO., - - - 285 E. Madison St., Chicago, Ill.

The human mind is so constructed that it is appreciably affected by repetition—and, after all, advertising is only repetition.—*Truman A. DeWeese.*

F. GRAFFENBERGER, Convertible Skates

FOR SKATING

FOR ROLLERING

887 4th STREET MILWAUKEE, WISCONSIN

Cash Price Offer or Royalty

IT'S THE

"BURHAM" BLADE

THAT MAKES

THE BURHAM SAFETY RAZOR

WHAT IT IS

They are made of the finest Sheffield Steel, automatically ground, honed and stropped. Every blade thoroughly tested before leaving the factory.

THERE'S A HANDSOME PROFIT

in Burham Safety Razors for every dealer who handles them—a display of the three grades, which sell at 25c, 50c and $1.00, in your windows and on your counters would assure sales—every man would want one—we are advertising them extensively too—this is creating a big demand—be ready to supply them when they are asked for.

IF YOU WANT TO ADD A MONEY MAKER TO YOUR STOCKS WRITE US TODAY. PRICES ON APPLICATION

BURHAM SAFETY RAZOR CO.,

DEPT C, 66 MURRAY STREET - - - - NEW YORK, N. Y.

COMBINATION SET
Twelve Blades and Case
Black Leather Case
$6.50
Silver Plated
Pigskin Case
$12.00
Gold Plated

STANDARD SET
Twelve Blades and Case
Black Leather Case
$3.50
Silver Plated
Pigskin Case
$5.00
Gold Plated

KEEN KUTTER Trade Mark

KEEN KUTTER

A HIGH-GRADE

SAFETY RAZOR

KEEN KUTTER SELLING POINTS

Perfect "Hang" and "Angle"

The "Angle" at which the Blade is set in the Safety Razor has much to do with a comfortable shave. The "Hang" of the KEEN KUTTER Blade is such that it has that "firm feel" to the face of the old style razor.

Norwegian Cutlery Blades

The KEEN KUTTER Blade is thick enough to permit of a degree of temper and a keenness of edge which positively cannot be secured in any thin, wafer-like, flexible blade.

Economical in Use and Price

Owing to the superior quality of the KEEN KUTTER Blade, it will shave better, keep a sharp edge longer, and give more shaves than any other Safety Razor blade ever made, and you can sell it for less money and make a BETTER PROFIT than you can any other High-Grade Safety Razor.

For Illustrations and Prices Address, DIVISION 5 **SIMMONS HARDWARE CO.,** ST. LOUIS, MO.
INCORPORATED

ATLANTIC

High Grade

Tin, Copper and Galvanized Ware

is recognized as being the very best on the market

ATLANTIC WASH TUBS

Made from smooth galvanized sheets, double seamed. Have raised corrugated bottoms and can be had with our new patented wedge shaped wringer attachment. This makes the fastening of wringer easy and pulling off impossible.

ATLANTIC OIL CANS

all kinds and sizes. Can be had with spout or faucet. They are well made, guaranteed not to leak. Funnel holes will admit the largest funnel. Each can is nicely labeled and wrapped in heavy manilla paper.

We also manufacture Pails, Garbage Cans, Refrigerator Pans, Wash Boilers, Dinner Pails, Dippers, Funnels, etc.

Write for complete catalog

Atlantic Stamping Co., ROCHESTER, N. Y.

Agate NICKEL-STEEL Ware

AGATE L&G Mfg. Co. NICKEL-STEEL WARE

is absolutely free from poisonous substance, is made by careful, experienced men, by a company founded in 1850. The first enameled ware and blue and white ware made in this country was made in our mills. We know how to make enameled ware safe and durable. We make it safe and durable because we are proud of the trade mark. Look for the blue label.

Lalance & Grosjean Mfg. Co.

Chicago New York Boston

Maher's Pure Copper Cable

We now have the best Lightning Rod Factory, and the best of machines for twisting our cable. We make all sizes of Pure Copper Cable—30, 32, 34, 36, 40—or in fact any size you want, and our fixtures are the best that can be made—we manufacture them all and know just what they are. We also loan you one of the best static machines on earth free with an order for 2,000 ft. We use the purest copper we can buy and will guarantee it over 99% pure. And this season we have the price and that is what we are all looking for. We do not want all the profit and are willing to divide with you. Just drop us a line and we will explain and send samples of the best Copper Cable Lightning Rods and Fixtures at a price that you can make some money handling it.

MAHER & SON LIGHTNING ROD CO., Preston, Iowa

LIGHTNING RODS

We manufacture Pure Copper Wire Cable Lightning Rods, made of 28, 30 and 49 Wires, with complete outfit of trimmings.

E. A. FOY & CO., Cincinnati, Ohio

Trade Supplied at Lowest Rates. Send for Catalogue "B."

Drink Pure Water

The No. 50 Star Pump shown here will positively purify the water in any well or cistern in a short time.

This purifying feature alone makes it the only pump fit to put in any well where the water is used for household purposes, for it will surely save its cost in the Doctor's bill many times over.

As it is made of No. 24 gauge galvanized iron it is a very substantial and handsome outfit, and will last for years.

Our line of purifying pumps is very complete. So is our line of Galvanized Chain Pump Curbs and Tubing.

Ask your jobber for Star Pumps.

STAR BUCKET PUMP CO.
ST. LOUIS, MO.

The Largest Assortment of HONES in the world.

Also a complete line of cutlery, razor strops and hardware specialties.

S. R. DROESCHER, Importer and Mfr.
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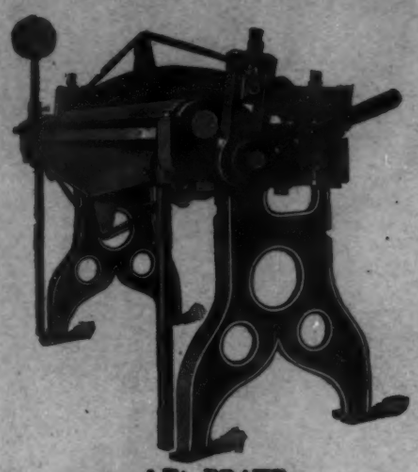
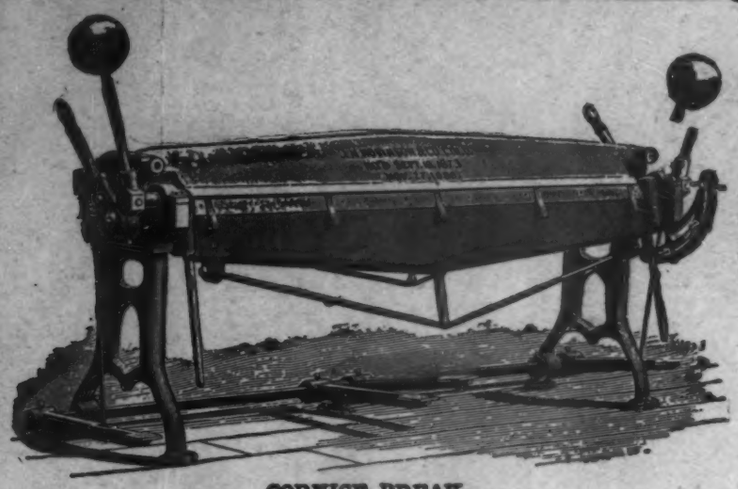


4 Ft. BRAKE
Capacity 12 Gauge.



CORNICE BREAK
Capacity, 20 Gauge and Lighter.

THE J. M. ROBINSON MFG. CO.

Manufacturers of Sheet Metal Working Machinery

3282 to 3288 Spring Grove Avenue CINCINNATI, OHIO

GOT THE PATTERNS HE WANTED

To THE AMERICAN ARTISAN:

I wish to take this opportunity to thank you and my brother "finks" for patterns for the one-piece chimney cap that I have been looking for. I have received cuts and patterns from all over the country through your valuable paper for the chimney cap, and as it would take me quite a while to write letters of thanks to all those who have submitted patterns through THE AMERICAN ARTISAN, I wish to convey my thanks to them and to you through your paper.

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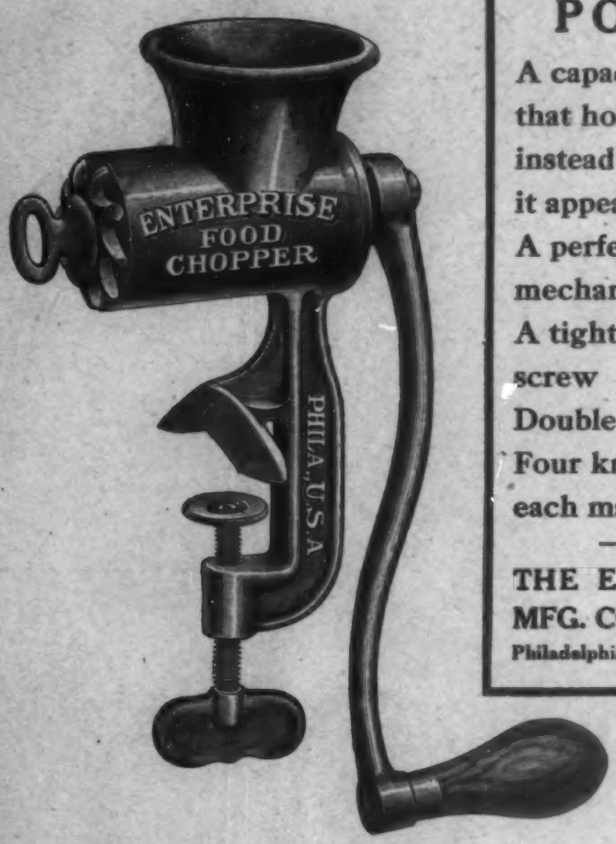
If you buy the right goods they will sell themselves—Particularly true of "Enterprise" Food Choppers
Best Made
Best Known
Best Liked
Best Advertised
This picture shows the graceful lines and strong simplicity of the
"ENTERPRISE"



POINTS

A capacious hopper that holds more, instead of less, than it appears to hold
A perfect cutting mechanism
A tight, true feed screw
Double tinned
Four knives with each machine

THE ENTERPRISE MFG. CO. OF PA.
Philadelphia, U. S. A.

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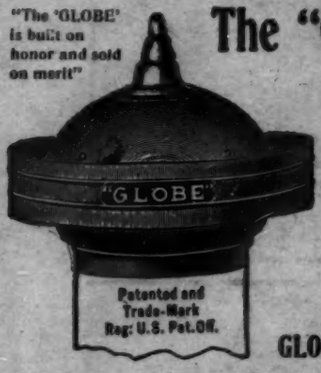
THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size and bead, and the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them, send your order direct to the

J. E. WHITACRE MFG. CO.
ROCKFORD, ILL.
Manufacturers of Sheet Metal Specialties.

"The 'GLOBE' is built on honor and sold on merit"



The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes.

ABSOLUTELY STORM PROOF
For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character
SMOKY CHIMNEYS CURED

"GLOBE VENTILATED RIDGING"
Send for Pamphlet
MANUFACTURED BY
GLOBE VENTILATOR CO., Troy, N. Y.

STAY-IN Flue Stoppers

are **guaranteed** to be absolutely soot proof. Cannot be jarred or blown from the flue hole.

Finished in Brass and Nicely Decorated

MANUFACTURED BY
STUBER & KUCK, Peoria, Ill.
We Also Manufacture PIECED TINWARE and All Styles of FLOUR SIFTERS

ROOFERS, BEWARE!
DON'T BE DECEIVED.

Roofing Tin is being sold stamped "Hammered Open Hearth" that does not bear any of our Registered Trade Marks. It carries an untruth embossed on its surface.

SAFEGUARD YOUR INTERESTS
by using the following brands:

Follansbee Banfield Process	Neville Old Style
Scott's Extra Coated	Lionel Old Style
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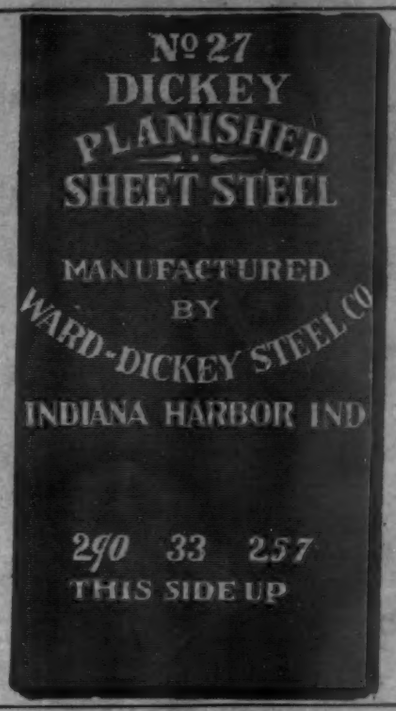
Honor Old Welsh Process	Orbit Redipped Old Style

Stamped and guaranteed
"HAMMERED OPEN HEARTH"

Follansbee Brothers Company
ONLY American Manufacturers
HAMMERED OPEN HEARTH ROOFING TIN
PITTSBURGH



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This Steel is Hammer Polished. It has the imported Russia Iron finish

It stamps and wears finely, without breaking or destroying the finish. Our Steel

Stands the Heat Retains Its Color

Under long and high heats it proves its superiority over all others.

Users say:
"It works like copper—never breaks." Send for Circular and prices.

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This Water Pail is only one of our line of many salable goods consisting in all of

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Manufacturers of
Fireproof Metal Windows
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Made either Stationary, Pivoted or Sliding Sash.
Architectural Sheet Metal Work of All Kinds
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RAIN - WATER - CUT - OFF

The strongest, most durable and cheapest CUT-OFF on the market.

The only single cut-off made to fit Corrugated and plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.

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